Genesee Farmer.

PRACTICAL SCIENTIFIC FARMERS OWN PAPER

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EXPERIMENTS WITH ARTIFICIAL FERTILIZERS ON POTATOES.

Last season, we made some experiments on potatoes, with various artificial fertilizers. The soil selected for the purpose was a light, sandy loam, which has been under cultivation for many years, and has seldom if ever been manured. It was a two year old clover sod, plowed about the first of May, and harrowed till in excellent condition. The potatoes were planted May 22, in hills three and a half feet apart each way. Two or three potatoes were planted in each hill, according to size. Each experiment consisted of five rows, with one row between each plot left without manure. The following table will show the results of the experiments:

Number of Plot.	Description of Manures used, and quantities applied per acre.	Yield of Potatoes per acre, in bushels.	Increase of Potatoes per acre, in bushels, caused by manure.
1.	No manure	95	
2.	150 lbs. sulphate of ammonia	140	45
3.	300 lbs. superphosphate of lime	132	37
4.	150 lbs. sulphate of ammonia and 300 lbs. superphosphate of lime	179	84
5.	400 lbs. unleached wood ashes	100	5
6.	100 lbs. plaster, (gypsum, or sulphate of lime,)	101	6
7.	400 lbs. unleached wood ashes and 100 lbs. plaster	110	15
8.	400 lbs. unleached wood ashes, 150 lbs. sulphate of ammonia, and 100 lbs. plaster	109	14
9.	300 lbs. superphosphate of lime, 150 lbs. sulphate of ammonia, and 400 lbs. unleached wood ashes	188	48

The superphosphate of lime was made expressly for experimental purposes, from calcined bones, ground fine and mixed with sulphuric acid in the proper proportions to convert all the phosphate of lime of the bones into the soluble superphosphate. It was a purely mineral article, free from ammonia and other organic matter. It cost about two and a half cents per pound. The sulphate of ammonia was obtained from London, at a cost of about seven cents per pound. The ashes were from hard wood.

The manures were deposited in the hill, covered with an inch or two of soil, and the seed then planted on the top. Where superphosphate of lime or sulphate of ammonia was used in conjunction with ashes, the ashes were first deposited in the hill and covered with a little soil, and then the superphosphate or sulphate of ammonia placed on the top and covered with soil before the seed was planted. Notwithstanding this precaution, the rain washed the sulphate of ammonia into the ashes, and decomposition, with loss of ammonia, was the result. This will account for the less yield on Plot 8 than on Plot 2. It would have been better to have sown the ashes broadcast, but some previous experiments with Peruvian guano on potatoes indicated that it was best to apply guano in the hill, carefully covering it with soil to prevent it injuring the seed, than to sow it broadcast. It was for this reason, and for the greater convenience in sowing, that the manures were applied in the hill.

It is well known that Peruvian guano is an excellent manure for potatoes. In the same field on which the above experiments were made, two acres were planted with potatoes, in 1852, without any manure, and two acres with 300 lbs. of Peruvian guano per acre, sown broadcast. The two acres without manure produced 238 bushels, and the two acres dressed with guano 410 bushels, or an increase of *eighty-six bushels per acre.*

All our commonly cultivated crops contain precisely the same elements, *but in very different proportions.* Now, it is very desirable to know what element is required in the greatest quantity for any particular crop. We have repeatedly shown that an analysis of the plant affords no conclusive evidence on this point. We can obtain this information only by actual experiment with the different elements of crops. Barn-yard manure contains *all* the elements of plant-food; and when an increase of produce is obtained by its use, we are unable to determine which element or elements had the most beneficial action. The same is true of Peruvian

guano, which also contains more or less of all the elements of plants, though in very different proportions from barn-yard manure. When we get an increase of 86 bushels of potatoes per acre from an application of 300 lbs. of Peruvian guano, we can not attribute the beneficial effect, with any degree of certainty, to any particular ingredient. It is true that Peruvian guano contains a large quantity of ammonia and phosphate of lime, and a very small amount of the other ingredients of plant-food, and any marked effect produced is in all probability due to one or both of these substances; but to which, we can not determine, without resorting to experiments with each of them separately and combined. We believe the above experiments are the first which have been made on potatoes, for the purpose of determining this interesting point. They were instituted not for the purpose of ascertaining whether sulphate of ammonia would be a profitable manure for potatoes, but whether ammonia was required for the maximum growth of the potato, and in what quantity. This fact being ascertained, we can use such manures as afford the largest quantity of ammonia at the cheapest rate. And the same is true of phosphate of lime, potash, or any other ingredient of plants.

It will be seen, by reference to the table, that 150 lbs. of sulphate of ammonia per acre gave an increase of 45 bushels of potatoes; 300 lbs. superphosphate of lime, an increase of 37 bushels; and the two combined, on Plot 4, an increase of 84 bushels. The ammonia and the superphosphate sown separately both give considerable increase, but they have a much greater effect when sown together, although the total increase is nearly the same from the same quantity of manure in both cases. The result shows that Peruvian guano—which contains both phosphate of lime and ammonia in considerable quantity—would be a much better manure for potatoes than either superphosphate of lime or ammonia alone. These experiments therefore confirm the opinion of practical farmers in regard to the value of this manure for potatoes.

The ash of potatoes consists of about 50 per cent. of potash, and this fact has induced many writers to recommend ashes as a manure for this crop. It will be seen, however, that in this instance at least they have very little effect, 400 lbs. giving an increase of only five bushels per acre. One hundred pounds of plaster per acre gave an increase of six bushels. Plaster and ashes combined, an increase per acre of 15 bushels.

One fact is clearly brought out by these experiments: that this soil, which has been under cultivation without manure for many years, is not, relatively to other constituents of crops, deficient in potash. Had such been the case, the sulphate of ammonia and superphosphate of lime—manures which contain no potash—would not have given an increase of 84 bushels of potatoes per acre. There was sufficient potash in the soil, in an available condition, for 179 bushels of potatoes per acre; and the reason why the soil without manure produced only 95 bushels per acre, was owing to a deficiency of ammonia and phosphates.

In enriching the soil for potatoes, therefore, the principal object should be to provide a sufficient quantity of ammonia and phosphates. Practically, we may confine our attention to the supply of ammonia; for there is no economical way of providing this "spirit-like essence of the farm," which does not at the same time furnish an abundance of all the other elements required by the plant. Of all commercial manures, Peruvian guano is undoubtedly the best and cheapest for potatoes. Of ordinary manures made on the farm, hen dung stands first, and hog manure next, inasmuch as hogs are fed on foods containing much nitrogen and their manure therefore contains much ammonia. The manure ought to be thoroughly decomposed, but it should be fermented in such a way as to prevent loss of ammonia and to retain all the salts of the urine.

In the *Genesee Farmer* for March, 1856, we stated that no plant enriches the soil so much for potatoes as red clover. This deduction from practical experience is fully sustained by the above experiments. A clover sod, plowed early in the spring and thoroughly decomposed, would furnish the potatoes with a considerable quantity of ammonia, though probably not sufficient for a maximum crop.

We may remark that no difference could be perceived in regard to the soundness of the potatoes grown by the different manures. Putrescent manures may have a tendency to increase the rot; but when the manure is thoroughly decomposed and intimately incorporated with the soil, we should apprehend no such effect.

Lettuce and Cut-Worms.—A correspondent assures us that by scattering a few lettuce seeds in different parts of his garden, he is never troubled with the cut-worm. The worms get under the leaves of the lettuce and live on them, and do not touch any other plants. Scatter the lettuce seed freely, and when the plants get to be in the way, pull them up.

The editor of the *Southern Planter* states that several instances have been brought to his notice where cattle have died from eating corn stalks that had been chewed by hogs. Have any of our readers observed the same effect?

CUTTING POTATOES FOR PLANTING.

After all that has been written on the subject, it is still a disputed point whether it is better to plant large or small potatoes, whole potatoes or sets.

The fleshy matter of the potato unquestionably furnishes food for the young plant; and, on theoretical grounds, it might be supposed that the larger the potatoes—the more fleshy matter there is to each eye—the more vigorous would be the early growth of the plant. This is probably true so far as the growth of leaves and stems is concerned, and it may be of *seed* (balls) also; but it must be borne in mind, in applying general principles to the cultivation of the potato, that the object is not to develop the natural growth of the plant, but to increase the formation of tubers—of the underground "*gouty branches.*" The present habit of the plant is the result somewhat of artificial treatment; and in order to retain this habit, we must resort to those practices which have been found from experience to induce the formation of tubers, rather than to those which are deduced from the general principles applicable to the natural growth of plants. Dr. Lindley—a high authority—says: "I have proved, by a series of numerous experiments, that the weight of potatoes per acre is greater, under equal circumstances, from sets than from whole tubers, by upwards of from seven cwt. to three tons per acre." An excessive amount of alimentary matter in the sets, therefore, is injurious rather than beneficial.

It does not follow from this fact, however, that small potatoes are better for seed than large ones. Small potatoes are apt to throw up too many small, soft stems, which produce smaller tubers than where there is one, or at most two, stout, woody stems. It seems, also, to be proved that a set from a good-sized potato is better than a set from a small one; and it is probably true, as the experiments of the Rev. James Farquharson indicate that large potatoes planted whole will produce a greater crop of good-sized potatoes than small ones planted whole. Yet it does not follow from this that there is not too much fleshy matter in the large potato when planted whole, and that it would not be better, as Dr. Lindley states, to plant only sets from the large potato.

It is a curious fact, but one which seems to be well established, that the eyes from the extremity of the potato produce crops which come to maturity from two to three weeks earlier than those from the root end. In some parts of England, farmers who raise early potatoes for market have availed themselves of this fact for many years. They cut the potato into sets, as shown in the annexed sketch. The sets nearest the extremity of the potato (*a*) produce the earliest crop, and are planted by themselves, in warm places, for this purpose. The sets at the root end (*d*) are planted for a late crop, and those in the middle of the potato (*b*, *c*,) are planted for an intermediate crop. The root end is usually thrown aside for the pigs.

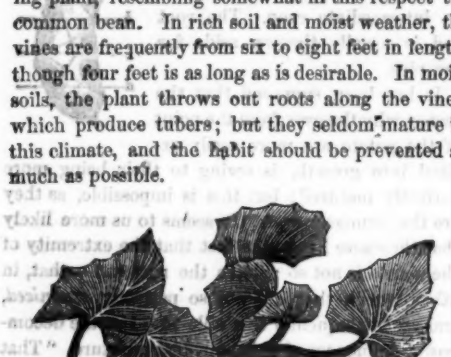
It has been supposed that the reason why the eyes from the point of the potato are more easily excited into growth, is owing to their being more perfectly matured; but this is impossible, as they are the youngest eyes. It seems to us more likely that the cause lies in the fact that the extremity of the potato is not so ripe as the root end—that, in other words, they are not so perfectly *organized*, and are consequently less able to resist the decomposing influences of light, air, and moisture. "That which thou sowest is not quickened unless it die." The organized matter of a plant must be decomposed (or die) before it can reproduce itself. The youngest eyes, being less perfectly organized, would decay soonest and grow earlier and with greater vigor. It will be urged, as an objection to this view, that the ripest buds of trees start earliest. But the cases are not parallel. They derive nourishment from the sap of the tree, and not from the decay of organic matter surrounding them. Still, whether our reasoning is correct or not, the fact that the buds at the extremity of the potato will produce the earliest crop, seems to be beyond dispute; and those who wish early potatoes may avail themselves of it, even though the cause may not be clearly understood.

CULTIVATION OF THE SWEET POTATO.

We have received repeated inquiries as to the feasibility of cultivating the sweet potato in this vicinity. That the sweet potato can be grown here with considerable success, has been repeatedly proved. We have seen unusually large and fine tubers grown in this State, but they are seldom as sweet and palatable as those brought from the Southern States. The principal reason of this is no doubt owing to a lack of sufficient heat and to our short seasons, though the difficulty has been materially increased by making the soil too rich. It is well known that sugar beets raised on rich soils, especially those manured with strong ammoniacal manures, contain a less proportion of saccharine matter than those raised on poorer soils; and the same is probably true of the sweet potato. It is by no means a common error to make the soil too rich for any commonly cultivated crop, yet there is a disposition sometimes to do so for a new plant that is raised on a small scale by way

experiment. We believe many of the failures to raise sweet potatoes at the North, have arisen, to some extent at least, from this cause.

The sweet potato (*Convolvulus batatas*) is a trailing plant, resembling somewhat in this respect the common bean. In rich soil and moist weather, the vines are frequently from six to eight feet in length, though four feet is as long as is desirable. In moist soils, the plant throws out roots along the vines, which produce tubers; but they seldom mature in this climate, and the habit should be prevented as much as possible.



THE SWEET POTATO.

The plants must be started in a hot-bed. Place the seed tubers lengthwise across the bed, nearly end to end, in rows six inches apart. This should be done from the first to the middle of April, according to the season. As soon as the shoots are three or four inches high, take up the tubers carefully and break off the young plants close to the parent tuber, so as to save the side roots. The tubers may be replanted for a second crop.

A light, warm, sandy soil, not too rich or moist, is best adapted for the sweet potato. It should be made as loose and mellow as possible. Plow the land into ridges four or five feet apart, and set the plants on the ridge from twelve to fifteen inches apart, in the same manner as though they were tomato or cabbage plants. Hoe the ground frequently, but without increasing the height of the ridge. Those who have not convenience for raising the plants in a hot-bed, will find them advertised for sale in this number of the *Genesee Farmer*.

CLOVER SEED of a bright yellow, with a good quantity of the purple and brown colored seed among it, (which shows the maturity of the seed,) should be preferred.

CULTIVATION OF FLAX.

FLAX PLANT.

FLAX succeeds best on a moist soil abounding in organic matter and resting on a rich clay. Low, swampy land, *that has been thoroughly underdrained*, frequently produces heavy crops of flax. The land must be free from weeds, and fine tilth is particularly necessary for this crop. It is generally recommended to plow the land in the fall and again in the spring, with repeated harrowings, till it is in fine condition, though some cultivators contend that it is better to turn under a clover sod in the spring, after the clover has grown a few inches, and then sow immediately. We think this a good plan.

Where flax is grown for the fibre, more seed is required than where it is grown exclusively for the seed. In the former case, as much as two bushels per acre is frequently sown by the best flax growers; in the latter, three pecks are considered sufficient. On very rich soils, there is danger of sowing too much, where seed is the object. On the other hand, where the crop is raised for the fibre, the richer the soil the more seed should be sown, or the fibre will be coarse.

The earlier flax is sown, after all danger from frost is over, the better will it be, either for fibre or for seed. In Ohio, where a considerable breadth of land is sown with flax for the seed, the earlier the seed can be sown after the first week in April the better. In this State, it is seldom sown before the first week in May. It is better to wait, in all cases, till the land is in good working order. The crop is frequently injured materially by drouth, and early sowing is a preventive. If the land is not very clean, weeds are more likely to injure the crop than when sown later.

It is not generally considered advisable to manure for the flax crop, on account of the weeds. It is best to sow on naturally rich soil. A bushel of plaster per acre, sown broadcast with the seed, has sometimes a good effect, especially on dry upland. Peruvian guano has also been used with advantage.

HARROWING WHEAT IN THE SPRING is frequently very beneficial. It checks the growth of the weeds, and breaks the crust on the surface of the soil, admitting the air, with its ammonia and carbonic acid, to the roots of the plants. There is no danger of pulling up the wheat to an injurious extent.

AMERICAN AGRICULTURAL BOOKS.—No. 1.

We have often wished that some one with the requisite qualifications would write a review of the numerous books on agriculture which, in our own advertising columns and in those of other agricultural periodicals, are indiscriminately offered for sale to American farmers. Such a review is greatly needed; and while we can not ourselves undertake the task, yet we have thought that a brief notice of these works may not be altogether uninteresting and useless.

Allen's American Farm Book,* first published in 1846, under the title of "*A Brief Compend of American Agriculture*," and, after "a thorough revision," again published under its present title, in 1849, is one of the most complete treatise on American agriculture that has yet appeared. The chapter on Soils—their Mechanical and Chemical Characteristics and Treatment—is quite valuable; that on Manures, in the main correct and well worthy of careful perusal. Irrigation and Drainage are intelligently and practically discussed, as are also the various operations of tillage, plowing, harrowing, rolling, etc. There is a brief description of nearly all the grains, grasses, clovers, and other plants commonly cultivated in this country, accompanied with very fine engravings taken in the main from *Loudon's Encyclopedia of Agriculture*. The remarks of the author in regard to their adaptibility to this climate, are very useful. There are also chapters on Fruit and Shade Trees, on Rotation of Crops, Weeds, Farm Buildings, etc., forming, with a very complete index, a volume of 325 pages that should be in the hands of every American farmer.

The American Farmer's Encyclopedia is a valuable work of 1179 pages. It is mainly a re-print of an old standard English work, by C. W. Johnson, revised and adapted to the wants of the American farmer, by Dr. Emerson, of Philadelphia. It was published in 1843, and consequently is silent on many improvements which, by the application of chemistry and mechanical science to agriculture, have been so happily inaugurated during the last fifteen years. Still, it is a useful work, and one which, in the absence of any other Encyclopedia of Agriculture published in this country, we can cheerfully recommend. A new edition has been recently brought out, but it is in every respect similar to the one published in 1843. Price $4.

*The American Farm Book, or Compend of American Agriculture; Being a Practical Treatise on Soils, Manures, Draining, Irrigation, Grasses, Grain, Roots, Fruits, Cotton, Tobacco, Sugar Cane, Rice, and every staple product of the United States; with the best methods of planting, cultivating, and preparing for market. Illustrated by more than 100 engravings. By R. L. Allen, author of "*Domestic Animals*," and editor of the "*American Agriculturist*." New York: A. O. Moore. Price $1.00.

Fessenden's Complete Farmer and Gardener,* published in 1837, contains a mass of heterogenous matter taken from a great variety of sources, with little judgment, and thrown together without much system. The author was for many years the editor of the old *New England Farmer*, and seems to have compiled his book from the current agricultural literature of the day; and as an embodiment of the views then entertained, and as a chronicle of many curious facts, the book will always possess a certain degree of interest; but it can not be taken as a guide by the young farmer of the present day. It is the last book we should think of referring to for correct information on any practical or scientific subject. The horticultural portion of the book contains 200 pages, and was first published as a separate work, under the title of *The New American Gardener*, in 1828. Like the agricultural portion, it contains a great variety of matter, good, bad, and indifferent, compiled from English and American authors and newspaper writers, without much discrimination.

Boussingault's Rural Economy† is a work in striking contrast with the above, and one which we are sorry to say is far less popular. It is, without exception, *the best work of the kind yet published*. The author is a French land-owner, a man of science, and a practical farmer, who has devoted his time and wealth to experimental investigations of various agricultural practices. This book contains the results of these experiments, together with much practical information derived from other sources. Those who have some knowledge of the principles of agricultural chemistry, will find this book of the greatest value. It treats of vegetable physiology, soils, manures, culture of plants, fattening animals, meteorology, etc., in an eminently scientific as well as in a very practical manner.

The Principles of Agriculture,‡ by Albert D. Thaer, is also a work of much practical value. It was written in 1815, before modern chemistry had thrown much light on the principles of agriculture,

*The Complete Farmer and Rural Economist; containing a compendious epitome of the most important branches of Agricultural and Rural Economy. By T. G. Fessenden. New York: A. O. Moore. Price $1.25.

†Rural Economy, in its relations with Chemistry, Physics, and Meteorology; or Chemistry applied to Agriculture. By J. Boussingault. New York: A. O. Moore. Price $1.25.

‡The Principles of Practical Agriculture; embracing the Theory of the Soil; Clearing of Land; Plowing; Manuring; Draining and Irrigation; Hedges and Fences; Management of Meadow and Pasture Lands; Cultivation of Wheat, Rye, Corn, Oats, Barley, Buckwheat, Hops, Tobacco, Clover and all the varieties of grasses; the Economy of Live Stock, Breeding and Feeding; the Management of the Dairy; and the use of Marl, Peat, Lime, and Gypsum, and the various systems of Cultivation; Keeping Journals and Farm Records, etc., etc. By Albert D. Thaer. Translated by William Shaw, Esq., and C. W. Johnson, Esq. New York: A. O. Moore.

and it can not therefore be regarded as a reliable expounder of the *rationale* of agricultural practices; yet it contains the observations of an accurate and scientific experimenter, and is well worthy of careful study. LIEBIG has indeed recently sneered at the "empyricism of THAER;" but since the failure of the pet mineral manure theory of the great German chemist, the writings of such practical men as THAER are attracting, as they deserve, more attention. THAER was born in Hanover, in the year 1752; studied as a physician, and became eminent in his profession. He married in 1786, bought "a small house and a large garden," and soon became celebrated as a horticulturist. He studied the best works on agriculture, purchased new land, imported the best English agricultural implements, and introduced the culture of clover, cabbage, carrots, etc., in conjunction with stall-feeding, and soon made his little farm the admiration of his numerous visitors. He made an agricultural tour through England, France, Denmark, and Germany. His treatise on British and German Husbandry, which appeared shortly afterwards, added to his reputation. The King of Prussia induced him to establish an agricultural school on a farm near Berlin. Here he made many valuable experiments, and ultimately brought his farm, which was naturally a poor one, to the highest state of fertility. He was even more successful in his efforts to improve the quality of the wool of his flock of sheep. He was the editor of an agricultural paper, wrote a great many useful books, and died, crowned with honors, in the year 1828. The writings of such a man command attention. His *Principles of Practical Agriculture* is his best work. His directions, on account of the less dissimilarity in the climate, can be followed by American farmers with more safety than those of any English writer. It is, on the whole, a work which we can most cordially recommend to all intelligent American farmers.

TO BE CONTINUED.

HAY CAPS AND STACK COVERS.—"G.," of Lee county, Ill., asks for information about "Stack Covers." A writer in the *New England Farmer*, who has used cotton cloth "hay caps" for several years, says that painting or oiling it is of no use—that they will shed rain just as well without it. For covering cocks of hay, and shocks of wheat or oats, or stooks of corn, he would have cloth "four feet wide, torn into squares, with a loop in each corner, and four small sticks about twenty inches long—one to hold each corner." For stacks they would need to be of larger size, and this would require two or three breadths sown together, with several loops on each side. B.—*Niag. Co., N. Y.*

IN wet weather, the necks of working oxen are apt to become sore. To prevent this, rub a little tallow on the yoke and bows.

IMPROVEMENT OF IMPOVERISHED LAND.

FRIEND HARRIS:—Waiving for the present the further discussion of analytical chemistry applied to the study of soils, allow me to congratulate your readers on receiving the very instructive article on "Natural and Artificial Drainage," which forms the leader in the February number of the *Farmer*, and to present for their consideration a few remarks on the improvement of impoverished land.

Mr. EDWARD BILLINGSLEY, of Zanesville, Illinois, says, in your last issue, that "the system of farming at the West has hitherto been an exhausting one, as though the fertility of the soil would last forever." He also calls attention to the fact that, while summer-fallows answer an excellent purpose on the clay lands of Europe, they are not adapted to the sandy, black mold, of this country; and he might have added, that our hot, tropical, and semi-tropical summers, over a large part of the United States, are not congenial to any large amount of plowing, or other tillage. Where the summer heat is much less, as in Great Britain, and the aggregate of sunshine not only less, but feebler while it lasts, it requires at least twice as much tillage to decompose vegetable mold, and decompound earthy minerals, as is needed in this sunny clime. The most prominent and injurious error in American agriculture is the universal practice of going over too much surface with the plow. Nature never uses the plow, nor any other thing of like influence, in forming a rich mold, or in making a soil that abounds in all the earthy part of our most valuable crops. If a farmer turns over his manure heaps several times during the spring, summer, and autumn, and permits rain and sunshine to fall upon them, the organic matter will rapidly ferment, rot, and dissolve, and disappear; and in a few years, the manure, if thus treated, will be dissipated. The stirring of the soil by the implements of tillage, increases the growth of plants mainly because it intensifies those chemical actions which dissolve their food. After the food of plants is dissolved from the disintegration of mold and minerals by plowing and hoeing, the law of general distribution diffuses these elements of fertility as far and wide as moving water and moving atmosphere will carry them. If there were no natural agencies for the universal diffusion of plants over islands and continents, and, consequently, for the equal diffusion of their appropriate aliment, then there could be no waste, locally, from the decomposition of manure, and no loss of fertility by plowing alone. But when one transforms his manure into gases and soluble salts, he must be careful, or no inconsiderable share of these will be carried, in ever-moving air and water, beyond his premises. It is the diffusion of the organic elements accumulated in swamps and rich prairies that poisons the atmosphere for human respiration in the immediate vicinity, and causes malarious diseases. The results of the first breaking of large prairies illustrate not alone local phenomena, but the operation of natural laws that equally extend over the whole globe.

Of all the animals that subsist on the fruits of the earth, man alone tills it, and he alone impoverishes the land that supports him.

To avoid the needless dissipation and consumption of fertility in all virgin soils, and in all others, it is important not to cultivate more land than is strictly required to meet the real wants of the culti-

vator and the public. To illustrate my meaning, I will state that there are about one hundred million acres of good cotton lands in the Southern States, forty millions of which have been gone over with the plow so often, and so exhaustingly, as to be now turned out as utterly worthless for tillage purposes. A continuance of the same policy of extending cultivation as the soil is impoverished, will reduce the other sixty million acres to a similar condition by the close of the present century. In this quarter, where a great commercial staple is grown for export, and where State and Congress lands cost next to nothing, to rejuvenate old plantations appears almost as difficult as to make an old man into a smart boy.

We have no large markets for fat sheep, cattle, and hogs, as Mr. JOHNSTON and others in New York have, to encourage us to produce a full supply of home-made manures; and Peruvian guano has cost $80 a ton delivered in Athens, the past year; and other commercial fertilizers are equally high, as compared with their value. So long as military lands and others may be bought at 80 or 90 cents an acre, and the very best that belong to the Federal Government at $1.25, who does not see that planters can make far more money to wear out large plantations and purchase more fresh land, than to buy manure, or make it, to keep up the virgin fruitfulness of the soil? How far will $1,000 go toward putting thirty-five loads per acre, of good stable or yard manure, over 800 acres of worn out land? Who will haul and spread the manure for a dollar and a quarter per acre?

Three years ago, I moved upon the farm where I now reside, which contains some 500 acres of old fields. One of the least worn was planted in corn, fairly cultivated, and a third of the crop came to me, which was not over a bushel to the acre. Selecting the best two acres I could find in a forty acre field, cultivated in corn, I had it well plowed, dressed with thirty bushels of good house ashes, and sown with two bushels of wheat. It grew some twelve inches high, and turned out about as much grain as was sown. Four acres adjoining were sown in barley, without fertilizers of any kind, and produced nothing. Other fields sown in oats and rye, when I came upon the place, did very little better than my barley and wheat. I fenced in a new field of seventy-five acres which has rested some fifteen years, and it affords grass (broomsedge) enough to keep five cows, a yoke of oxen and a horse six months in a year, with a little grain. As the negroes and mules did not earn ten cents a day by cultivating these old fields, they were taken by their owner to the rich and cheap lands at the southwest, whither so many thousands are going every year.

It is useless to talk about "renovating crops" grown on land too poor to produce cow peas, rye, or Indian corn, in a good corn climate. The true remedy for the evils that accrue from plowing and hoeing the soil until all its organic matter and soluble minerals are dissolved out, is to raise crops for manure long before the land is exhausted. Unless the readers of the *Farmer* expect to abandon their present farms at some future day, they should learn wisdom from the uniform experience of all cultivators, with but few exceptions, who have fairly worked out to the bitter end the practice of excessive tillage, joined with defective husbandry. A badly developed civilization, and misapplied industry, demand more of American soil than it can possibly give and perpetuate its present fruitfulness. Mr. JOHN JOHNSTON sees this, and seeks to avoid the general impoverishment of the fertile region of Western New York, by urging its farmers to resort at once "to high feeding and high manuring." If I had the water that runs off in his under drains, to pass through land here that will not now yield over two or three bushels of corn per acre, I have no doubt it would soon produce thirty bushels per acre. I am confident of such a result from the fact that wherever a natural spring issues from the ground on the plantation, no matter how poor the soil may be in its vicinity, the water that flows out in a little stream uniformly greatly enriches all the earth in any degree irrigated by it. On evaporating the clear spring water to dryness, it yields both combustible, organic matter, and mineral salts, or the dissolved food of agricultural plants. By clearing off all bushes, briars, and trees, along the borders of the several "branches," (as little streams of water are called in this country,) ditching them where it is necessary, and turning the water out of its natural channels, as far as practicable, to increase the irrigation of the impoverished soil, I have no doubt that a full supply of corn and cheap manure might be obtained from these perennial fountains to enrich ultimately, aided by wise husbandry, the whole farm. No part of it is so far exhausted that it will not produce old field pines and mulberries; and the leaves of the latter make the best of leaf manure.

Where land is cheap and abundant, and withal thin and easily impoverished, forest culture is far better than to cut down the valuable timber on thousands and tens of thousands of acres, scourge the soil under a burning sun for a few years in cotton or corn culture, and then abandon it to repeat the same operation elsewhere. Moving water which has passed over and through more or less vegetable matter on the ground, as well as through large masses of earth, assisted by that which drops from the clouds, and by the growth of forest trees, supplies the farmer with the cheapest known means for the improvement of poor soils. Without buying a dollar's worth of manure, and with a garden spot that would not produce ten bushels of corn per acre, and fields such as I have described, I have raised corn, meat, milk, butter, and vegetables, beyond the wants of my family, by simply looking for their elements where others did not see them—in running water and in the subsoil. Nevertheless, I have done next to nothing, compared with what might be done by one who knew that his bread and butter depended on his farming industry.

By saving all nightsoil, soapsuds, stable and other manure, and taking pains to augment the aggregate quantity by the free use of forest leaves, I have made a little land highly productive; and to one who seeks retirement and comfort, more than fame or riches, a small area is more desirable than a large plantation. Our Anglo-Saxon mania for farms of the amplest dimensions, and whole continents to overrun and desolate with the plow instead of the sword, is leading us into the most perilous temptations and follies. A wise government would not entice millions to wear out their paternal acres in the old States, with the expectation that Congress

would sell them richer acres somewhere this side of sundown for a less sum than it will cost to fence their old homesteads.

A general knowledge of the true principles of agriculture would soon correct most of the evils that now afflict American society, such as over-trading, over-banking, and reckless speculations in lands, rail road and other stocks, city property, and lottery gambling. It is by robbing the soil of its natural fruitfulness, that our population has the means to feed and foster habits of idleness, luxury, vice, crime, and shamelessness, which could not exist if every cultivator performed the labor of making full recompense for all that the earth gives him. A fair restitution to the soil of the elements of fertility, would require more honest industry on the part of the community; would keep far more of the wealth of individuals and of States in farming lands, where it is safest and most useful to the republic and mankind at large. There would be less extravagance in cities and villages, and more real wealth and power in the country. A worn out farm is much like the dry bones of a dead horse—useful mainly as showing the extinction of life, and what has been by the mechanism of a curious organization. Some of the fossil remains of an old tobacco plantation exhausted before the Revolution, are as worthy of preservation in a museum as Dr. FRANKLIN's printing press in the Patent Office.

If one were to commence in New Jersey, near the Hudson river, and travel south to the center of Georgia, inquiring of farmers and planters all the way what substances had been most useful in renovating partially exhausted soils, he would be told that shell marl and green sand had proved most available and efficient, in addition to the resources of the land itself. It would extend this article to an unreasonable length to cite authorities on this point; but at another time I will bring together many facts that appear to me important as a part of the agricultural history of the central and southern Atlantic States. The rocks, soils, and climates of the extensive region more immediately subject to the influence of the Atlantic ocean and the Gulf Stream, differ widely from those of the still more expanded country lying west of the Allegany mountains. Different localities have very unlike advantages and resources for the improvement of arated and depastured fields; and every farmer ought to study the fertilizers, of whatever sort, within his reach.

D. LEE.

Athens, Ga., Feb'y 12, 1858.

CROPS AFTER BUCKWHEAT.—I would say to Mr. MCALLEY, in partial reply to his inquiry, that corn very seldom succeeds well after buckwheat. A neighbor who sowed barley on a lot adjoining ours, a part of which had been sown to this crop, found the buckwheat ground to yield only about half as much as that previously in corn, though otherwise treated alike. I can not say what crops do best, for my experience in buckwheat is limited. I hope others will give their views on the question. A YOUNG FARMER.

SIMPLE BUT ESSENTIAL.—Putt he feed box on the right side of the manger, and when you put the horse in, he will keep his own side, and not crowd against you. CYRUS AVERY—*Camptown, Pa.*

SUGGESTED ITEMS.—No. 19.

WINTER, judging by the snow and the level of the thermometer, was only postponed awhile, and we have it now in earnest. Let us be thankful for, and improve its opportunities.

"*Roman Agriculture*" shows us how truly SOLOMON declared, "There is nothing new under the sun," and that much may be learned from the wisdom of the ancients. Give us more on the subject.

"*What shall we plant?*" is a question of general interest, just now. What crop promises to be most profitable this year? We can not say, but go for "mixed husbandry" and "diversified crops," with your * correspondent. This is the only true policy.

"*A few Words on Manures*" are never out of place in the *Farmer*. One half the value of our barn manures are wasted by exposure and mismanagement. Our *neglected fertilizers*, if saved, would double the crops of the country!

"*Sheep on the Prairies*" can be made profitable, by proper care, as Mr. BRACKETT shows. His system of feeding is a good one.

"*Light and Heavy Soils Compared,*" is a good article. But with plenty of help and means, I would choose a heavy soil before a light one; then I would seek to make that light by underdraining and deep culture, with plenty of muck in my manures.

"*Muck, applied unmixed to the Soil,*" serves a valuable purpose as a fertilizer, especially on lands deficient in vegetable matter. Let all who can, detail their experience on the subject; it is one which should be urged upon farmers.

"*Preparing Fire-wood in the Fall*" is urged because it is a *leisure* time with the farmer. Not often, so far as my experience goes. Get up your wood in the winter, enough to last a year; saw and split in spring, before you can do field work, is my advice in the matter.

"*Best Rotation for a Clayey Farm.*" This essay talks as though a clayey field could be worked and planted *early*. Clayey farms about here are *mud*, if worked early, and sometimes if worked late. Tell us how you plow, width of lands, need of drainage, etc., if you please.

"*Getting Land too Rich.*" No danger of it, says G. C. L., even on Illinois prairies. Rank heresy, is it not? So Western men have told me; but a few years and a little experience changed their story. Manure is not dangerous—not at all!

"*Making and Preserving Feather Beds.*" Mother says this teaches good doctrine, and needed; for many a bed is spoiled by inattention and mismanagement. Under beds of corn husks are much better than those of straw, *we* think, and perhaps will send you our way of making them, in time for next corn-husking.

"*Prize Essays.*" We are glad to see so many competitors are called out; but, prize or no prize, let every reader whose views differ from those presented, and who can give facts illustrating them, write them out for the *Farmer*. The first I ever wrote for an agricultural paper was when a mere boy, and my communication was published in the *Genesee Farmer*, some fifteen years ago. I shall continue to write, for I have gained much thereby.

Niagara Co., N. Y., March, 1858.

NOTES FOR THE MONTH.—BY S. W.

PRIZE ESSAYS.—Taken together, the prize essays in the last *Farmer* embody in a condensed form the results of much valuable rural experience. Those articles on making, saving, and applying manures; the best rotation of crops on a clay farm; ditto on a sandy farm; and the two brief essays from G. C. L., on feeding, and the right use of muck in yards and stables; can not fail to impress every man who lives by stock growing and tillage: and to the market gardener, those detailed directions for the cultivation of tomatoes, by J. C. TAYLOR, of Holmdel, N. J., are worth many years' subscription to the *Genesee Farmer*. But the other contributions are alike interesting, and worthy of the prizes awarded.

SUPERPHOSPHATE OF LIME.—That practical essay from L., of Chester county, Pa., on Superphosphate of Lime as a Manure, needs more than a passing notice, because he gives the results of his repeated experiments, not only in the application, but in the making of superphosphate from bones and sulphuric acid, by his own manipulations at home; and the superior quality of his own article in its effects on vegetation, as compared with that he bought from the dealers, is noteworthy. Yet L.'s experiments go to prove that the organic matter in the bones, for various crops, is of more manurial value than the mineral phosphate. But he speaks of his painstaking experiments with the modesty of true genius; and I hope he will continue to give to the *Farmer* the results of more of his experiments in manuring and culture.

HOW TO MAKE THE MOST MANURE TO THE ANIMAL KEPT.—O. JUDD, of the *Agriculturist*, makes fifteen cords or thirty loads of manure for each horse or bovine, and five cords for each pig, at his little farm on Long Island. He keeps dry swamp muck in a shed adjoining his stable, a coating of which six or eight inches thick is spread in the stalls and kept there until thoroughly saturated with urine; then it is thrown into the stable cellar, and a like coating of fresh dry muck is put in its place. This muck is daily covered with a little straw or refuse marsh hay, which, with the solid fæces, is removed each morning, and more dry litter is put in its place. The mucky mass heats a little in the cellar, but not enough to hurt its ammonia. Late in the fall, the manure is hauled from the cellar to the field, and heaped up with about twice its bulk from the pile at the bog. These heaps are forked over in the winter, and in the spring they are spread and plowed in. Although this manure is made and saved at the expense of much labor, it is mostly done in cold weather, when Irish and German help is plenty, and needs nothing but the master's eye to make it cheap and effectual. How much better and more economical it is than the skinning process, which is working hard with slender hopes of present reward, and the certainty of being starved out in the end.

THE SOVEREIGN PEOPLE OF THE UNITED STATES.—The late monetary revulsion in this country is a puzzle to the political economists of England; even the astute editor of the *London Times* is at a loss to account for such a consummation, "in a country overflowing with a bountiful harvest." Little do Europeans know of our social position and civilized necessities, if they think that full bellies of bread, and cheese, and beer, or sour grapes, will suffice us as it does the great working classes of old Europe. In England, the man who holds the plow has no material want beyond bread and beer, and a thatched hovel and *summut* for his *Missus and childer!*—While the holders of our plows and their families, have even more than a lessee English farmer's wants; for they want painted houses well furnished, and their daughters want the latest Parisian fashions. Then money must be had to send west to pay on contracts for new land, bought dear in times of paper money inflation, and now to be paid for when money is not, and crops bring little compared with the prices of former years!

A SLEIGH RIDE ALONG THE EASTERN SHORE OF CAYUGA LAKE—DAVID THOMAS—UNION SPRINGS—AURORA.—Great has been the improvements within two years, not only in fences and buildings, but in general farm management, along this beautiful lake region. Union Springs, from a little drab-colored hamlet, with a spring mill nestling among tall girdled oaks by this matchless lake side, as I once saw it, is now a large and wealthy village, with many houses of costly Elizabethan architecture, fine gardens, shade trees, shrubbery, and J. J. THOMAS' nurseries in progress. Here I called to see my greatly esteemed and ancient friend, D. THOMAS, once a pioneer of this county, a moral shining light, an ornament to true Quakerism, and an amateur and a master in the vegetable and floral kingdom. But now, stricken by a mortal disease in his 82d year, his memory is gone, and he is at this time only the confused and disjointed intellectual debris of what he was. Yet a kind providence is mindful of him in his last extremity, for he quietly said, as he laid back in his pillowed chair, that he now slept much and suffered little.

Near this village are some fine specimens of hammered limestone fence. Some of the fields bounded by the lake rival the Sciota bottoms in lasting fertility; but the wealthy proprietors show no disposition to put nature's bounty to the test by continual plowing. Four miles south, we come to the first lake bluff, except at Yawger's point; but this is only three-fourths of a mile long, with an altitude of from thirty to eighty feet. It is crowned with a beautiful growth of red cedars, from fence post size, to the tiny shrub, right for transplanting.

Aurora is a quiet but wealthy village *unblessed* with corporation laws or taxes, and consequently a stranger to *tax eaters*. Yet the sidewalks are ample, made of beautiful rectangular calciferous slate, quarried at the head of the lake. There are costly houses; an Italian villa with its tower and niches holding exotic statuary; fine gardens; matchless borders of flowers; shrubbery, green and evergreen; and such precious as well as late fruit and vegetables, as few locations in Western New York can boast of. The climate is tempered here in winter by the passage of the north-west wind over six miles of the warm, never-freezing lake. But unlike most wealthy villages, Aurora seems to be without its just proportion of the poor and needy, as if to bring to naught that scripture which declares that "the poor ye have always with you." True, here is a Catholic, ycleped Romish, Chapel, with lots of Hibernia's sons and daughters, who live by honest labor; but they are comparatively rich, no matter how poor they came here. Profiting by the sobriety and economy of their wealthy employers, they soon lay up money; and as land is much

cheaper here than in the vicinity of large towns, Pat soon becomes seized in fee as the lawyers have it, and sets up his shanty.

Here, at the south of the village, at Payn's Creek, I saw a rich intervale of some acres thrown up into high, broad ridges and deep trenches by the spade. It looked beautiful; yet I could not help but feel that the "increase would not pay the malting," where land is so plenty and cheap, and vegetables *ad libitum* in every man's garden. But the farm belongs to an amateur farmer from New York, one of the editors of the *Journal of Commerce*, a man of taste, a gentleman, and a scholar. When money comes easy, it is innocent and even commendable to employ it thus. I could be as enthusiastic in praise of the blue and green waters of Cayuga Lake, as of the all fertile, picturesque country that surrounds it, had I not so long lived by the side of the prolific ocean, whose waters teem with a marine vegetation and consequent profuse animated nature, unknown even to the largest lakes. True, among the *feather beds* of the Cayuga outlet and Seneca river, both *Zoophytes* and *Crustacea* may be found; and bull heads, perch, pike and pickerel, are at times to be caught, with now and then a few lean herring and poor whitefish, with an occasional salmon trout from the bottom of the deep lake waters. But what are they, compared to the vegetable and piscatorial wealth of old Ocean's borders?

TO DESTROY CANADA THISTLES.

Editors Genesee Farmer:—Among the prize essays published in the January number of the *Farmer*, I find one on the destruction of Canada Thistles; and although it contains many good ideas, yet some of the methods your correspondent recommends for their extirpation I know from experience to be entirely fallacious.

One of the means which he recommends for their destruction is to "fallow with a green crop—of Swedish turnips, carrots, mangel wurzel, potatoes, or with Indian corn." Now, sirs, unless it is intended to cultivate and hoe these crops from the time they are above ground until they are ready for the harvest, the thistles will only grow the faster for the good cultivation which the crop receives.

A crop of corn will destroy thistles, will it? Let us see. We generally finish hoeing corn in the fore part of July. In August, we never touch it. Men may write as much as they please against destroying Canada thistles by cutting them in certain stages of the moon or in certain months in the year, and I can kill more thistles by cutting them in the month of August alone than they can in all the rest of the year. Why this is so, I explain as follows: The great object of Nature is the multiplication of the species both of plants and animals; and as the season draws to a close, she puts forth all her powers to accomplish that object. Take the burdock, for example. When cut in the fore part of the season, it will throw up long, slender stalks, similar to those cut off; but in the latter part of the season, numerous short, branching shoots, will be thrown out, each laden with its embryo seed, ready to grab hold of every passer-by, and thus be scattered broadcast over the earth. This is the great object of Nature; whether for a good or an evil purpose, it is not our design to inquire at the present time. This effort on the part of Nature to produce seed, draws hard upon the roots, and weakens them. Hence, if they are cut often and thoroughly in the latter part of the season, they are pretty sure to die. But in planting corn or roots among them, during this part of the season they are not disturbed, but left to grow and produce seed unmolested; and for any one to think of eradicating them by such means as that, is all sheer nonsense. It looks very well on paper; but when you come to give it a trial, it fails.

Everyone familiar with clearing land knows that if trees are chopped in the spring, the stumps will sprout and grow, because the sap is in full circulation and the tree is vigorous from root to leaf; but in the latter part of the season, Nature having accomplished her mission in the production of seed, if the tree is cut, the stump or root does not sprout, but dies; and land that is chopped at this season of the year will be clear from stumps much sooner than when chopped in the spring. C. C. WILSON.

Newfane, Niag. Co., N. Y., Jan'y, 1858.

CANADA THISTLES.

Editors Genesee Farmer:—The essay of W. E. of Cobourg, C. W., in your January number, on the methods of destroying this troublesome weed, contains valuable suggestions; and it were well for the country if they were generally adopted and practiced by our farmers. I have known, in my own experience, the entire success, in eradicating the thistle, of a thorough summer fallowing—plowing and dragging five or six times. The season of my experiment was a very dry one. No thistles were seen in the lot after that operation, within my knowledge, covering a period of some six years.

I would suggest a method I have lately practiced with equal success, and at less cost of labor. It is to plow the thistle patch or lot in the fall, early in November; then, in the spring, go over the ground with a cultivator or gang-plow, and repeat the operation two or three times, as circumstances may require—that is, as often as the thistles show themselves—until the 20th of June, when the ground should be sown with buckwheat at the rate of one bushel or more to the acre, to secure early shading of the ground. This done, and you have disposed of the thistles and almost every other foul weed, and may have a good crop of buckwheat. After harvesting the buckwheat, it will be well to go over the ground with a gang-plow, to make more certain the destruction of the thistles, and to sprout the buckwheat that may be scattered on the ground, that it may not infest the next spring's crop. I have found oats or barley to do very well as a crop to succeed the buckwheat.

I performed this operation, the past season, on six acres of ground badly infested with thistles, and harvested 225 bushels of the best quality of buckwheat, beside about 30 bushels that must have been wasted by reason of the incessant rains at the time of harvesting and threshing. Not a sign of a thistle was to be seen on the ground this last fall. R.

Calves which come early are to be preferred for rearing. Those which come late, frequently do not acquire sufficient strength to bear the cold of winter.

CUTTING GRASS OR GRAIN BY MACHINERY.

EDITORS GENESEE FARMER:—Among the most noticeable articles in the January number of the *Genesee Farmer*, is the prize essay of Mr. DAVID STREET, of Salem, Ohio, on the "Advantages of Cutting Grass or Grain by Machinery."

So important a proposition as that which proposes to abandon the scythe and the sickle for some wondrous machine not yet put to the test by the great majority of our farmers, it seems to me ought to be talked over a little by somebody upon the other side of the question; and I really hope that our agricultural friend out toward the backwoods of Ohio will have no objection to these observations, even if the effect should be to persuade people to stick to the scythe, and let the labor-saver go for a few years longer at least.

To make out a case, farmer STREET takes first, for an example and illustration, the assertions of a couple of farmers, A. and B., who have got each six acres of grass to cut and get into the barn. He allows A., with two hands, (three in all,) to cut and put up in the old way one and a half acres in a day, or the whole six acres in four days; while B., who uses a mowing machine and employs the same number of hands, will finish two acres and a half the first day, a little more the next, and finish the six acres in a couple of days. Mr. S. is in favor of the mower, therefore. He says he speaks from fair experience, and of course claims for it all that the case will allow, and we will let his estimate for the six acres stand for the present; but his calculations upon the time it would take poor farmer A. to worry off his six acres, need mending as much as would his new mowing machine after the first accident, and can be mended far easier—for he might *guess* again, while the mower would have to be carried to the blacksmith shop, if it could be got there, or, which would be about as easy, the blacksmith shop moved into the field.

In the town of Oxford, or in the State of New York, I suppose we have no faster or better mowers than anywhere else; neither do I suppose that our grass is better or poorer than the grass in other places; and here three average hands will in one day cut down with their scythes, make, get up, and put into the barn, three acres of good grass in a day, with much ease; and instances are common where extra driving hands do about double that amount in a single day. This beats our Ohio friend's calculations altogether; and to make his case stand at all good, he *will* have to guess again.

Upon the same principle of reasoning throughout, in regard to the saving of labor, time, and money, and some other advantages in favor of the mower, Mr. S. finally claims that the case in favor of the mower over the scythe is well made out; but, seriously, we can quicker, plainer, and better, make out ours.

In the State of New York, I shall put down the average size of farms at about 100 acres, and the average of mowing or meadow land at 25 or 30 acres to each.

To begin haying, farmer B. goes off 10, 15, or 20 miles, and buys a mowing machine at a cost of $125 or $150, (see calculations of farmer STREET, of Ohio, for the price of one,) and begins upon his 25 or 30 acres, with his two men, and finishes it in eight or ten days (see same authority) at an expense of about $35—horse hire, wear and tear, etc., not included; while farmer A., here in New York, with the same number of hands, without a mowing machine, will, in the same time, mow down, get up, and *get into the barn*, his 25 or 30 acres of grass, while the machine man's is only cut and put up in good order, according to good authority. We allow both farmers to use a horse-rake, of course.

But the above is not all. We have seen the first cost of the mowing machine of farmer B. to be, at the lowest price, $125, the interest on which, at 7 per cent., would be $8.75, to which must be added at least $2 a year for repairs, and we have got for the first year the sum of $10.75 on the wrong side for those who mow with their horses. "Nor is this all;" for the length of time which a mowing machine will usually last, according to good authority, is not more than about ten or a dozen years, when the first cost of $125, with interest on the money, repairs and all, are all gone; while the expense for scythes for a life time would not equal half so large an amount.

And this is not all. We have seen, from observation and experience, that the introduction of patent-right "labor-saving" machines is too too often the means of causing an unwonted degree of idleness with those who before were steady and industrious at their work, and of begetting false notions for loisure hours and days. This I believe to be true in regard to mowing machines in particular. Several of my acquaintances have recently bought them, and from that time they seemed to think their haying was half done. They are in no hurry to begin, and can go hunting and fishing, and go up to the village oftener than ever; and while there, they talk long and loud, to everyone they see, upon the subject of mowing; and sometimes, before coming home again, get so *much down*—I don't mean the grass—that they have as much as they can do, with *good help*, to get along with it. And then at last, when they guess it is going to be good weather, they go to slashing down the grass. But it often happens, when a whole field is cut down, that they have waited till good weather is past, and half a dozen acres are caught in the rain, with the mower and all—for nobody ever undertook to get one under cover, I believe. And then comes the good time to look into the kitchen of farmer B., or as soon as the greater part of the people of the neighborhood are ready to go into the house, which will not be until the men have assembled around the mower, to examine it in each of its parts, to point out defects, suggest improvements, etc., etc.

Nor is this quite all. Farmer S. anticipates a time when help may be so scarce that to procure sufficient of it would be difficult, if not impossible. If that time has ever been, it is not likely to occur again, at least in the State of New York; certainly not at a time when thousands of laborers are complaining of not being employed, and are not far removed from care and want. How much better, then, to give employment to our honest, hard-working neighbor, who labors for his bread, than to send off our money to some princely proprietor of a thundering machine establishment, to a foreign country even it may be, to obtain that which at most is of exceeding doubtful benefit to the farmer.

And lastly, we wish to say to our good friend in Ohio, that if it has never been permitted him to

visit an old-fashioned hay field in the good county of Chenango, it would almost repay him to come on a pilgrimage here, where one of our old-fashioned farmers would, with his two boys, and a school girl or two to help just before night, mow down and get into the barn as much grass in a day as he would with his machine in Ohio, and perhaps more; and after work, pitch the mowing machine, if one should be left in the way, into the *street* at night.

E. A. BUNDY.

Oxford, Chenango Co., N. Y., Jan'y, 1858.

RAPE—ITS USES.

Eds. Genesee Farmer:—During the past summer, rape has been grown to a considerable extent in this county; and, judging from my own experience, it is a plant that in some measure will prove to be a valuable substitute for vetches, so useful to farmers in England, though not adapted to our Canadian climate.

I purchased seed in the spring, intending to prepare a piece of land *properly* for its reception, but the excessively wet weather prevented this. However, I sowed a few drills that had been prepared for turnips, leaving the plants six inches apart in the drills. This grew three to four feet high, and completely covered the ground in about seventy days. One month from the time it was cut, there was quite a second growth from the stumps.

On the 8th of July, I mowed about two acres that had been enclosed in the spring for the purpose of adding it to my fruit and vegetable garden this fall, and, as it could not be pastured, or mowed the second time to advantage, I plowed it, harrowed it well, and sowed it with rape on the 15th, covering it with a bush. The wet weather was favorable to its growth, and it soon covered the ground. Where it happened to be sown thin, (for it was sown too thick on the whole,) I should say there were four tons per acre. It has been very profitable to me in forwarding my fat cattle and keeping milch cows in good order for winter. I killed one cow fed on that alone, which was very fat. Two others and a pair of oxen were fed on it until the middle of last month, when they were stabled, and since then have been fed on hay twice a day, and white turnips, tops and roots together, three times. They get no water or exercise. I shall follow the white turnips with Swedish, then mangels and sugar beets. If they continue another month as they have done the last, I shall have fat cattle in a short time.

Next summer, if spared, I intend to grow it both for feed and green manure in the following manner: The land manured and plowed this fall; next spring it must be cultivated and drilled as for turnips, using the horse-hoe to keep clean. By the time pastures get bare and the aftermath is growing, it will furnish an abundance of green fodder for the cows and sheep; and before the end of harvest, it will grow the second time as much as can be plowed under. This, together with the large fibrous roots, must certainly furnish a great deal of nutriment for the succeeding crops.

To small farmers, like myself, it must, I think, prove invaluable, as we can afford to summer fallow but little; neither can we allow much to be used as pasture.

R. W. S.

Woodstock, C. W., Dec., 1857.

ASHES AS A MANURE.

Eds. Genesee Farmer:—What a mass of information might be obtained on all the details of agricultural practice, would each one who has experimented—in the use of different fertilizers, for instance—communicate that experience to the public.

Ashes we believe to be of material benefit to all dry soils, and to all crops grown upon them. Some years since, we applied a dressing of about twenty-five bushels per acre, to a portion of gravelly loam soil, in grass at the time, to the manifest improvement of that crop. Afterward, it was plowed up and planted to corn and potatoes, and there was a marked difference in the growth and product, compared with portions of the field unashed. The potato vines were much more thrifty—far less injured by the drouth, and the crop fair and good—more than double that on like soil to which no ashes were applied. The corn, also, was excellent.

The effect of the application of ashes in quantity is felt for several years. I saw very little diminution in the difference above noticed, the last year, though the whole field was manured freely and planted to different garden crops. Any one can see the long continued effect of ashes, in the fertility following the burning of log heaps in the field.

As a top-dressing for corn, about two tablespoonfuls to a hill, applied as soon as the corn is fairly above ground, has been found of great benefit. We would not forego their use, even if we could get twenty-five cents a bushel for all the ashes we made. We have noticed, again and again, a plain difference in the yield of corn fields dressed and undressed; and believe that ashes hasten the maturity as well as increase the product of the crop enough to pay double that amount in return for the application.

In the garden, we always use ashes freely; and our garden will compare favorably with other farmers' gardens. For all kinds of roots and vines, they are excellent fertilizers, and assist in preventing the depredations of various bugs and worms, so plentiful in summer, and so often injuring materially the various vegetables.

Other manures should be used, and used freely; but ashes will assist in bringing their virtues into the state most available to the crop, as well as having a beneficial effect upon the soil. We have often noticed mellow spots where ashes had been freely applied, both in the case of log heaps before noticed and in instances where they were spread upon the surface of dry, light land.

A. B.

Milking Young Cows.—It is said that young cows, the first year they give milk, may be made, with careful milking and good keeping, to give milk almost any length of time deemed desirable; but that if they are allowed to dry up early in the fall, they will, if they have a calf at the same season, dry up at the same time each succeeding year, and nothing but extra feed will prevent it, and that but for a short time.

Lice on Calves.—I have discovered a method of ridding calves of lice. *Give them flax seed.* I am wintering eight calves; they became very lousy, and I fed them half a pint at a time for two days, and the oil from it drove the lice all off. Cyrus Avery.—*Camptown, Pa., March*, 1858.

NOTES FOR THE GENESEE FARMER.

Tomato Rack.—I have tried to imitate the cut in the June number of the *Farmer* for last year; and although I have not succeeded in a full imitation, it has passed my expectations. I have been so well pleased with it that I shall grow all my tomatoes in that way, and say to others, try it, and you will like it.

Corn.—During the past summer I have observed the different growth of corn, in my field of about three acres. About one-fourth of this was a Timothy sward that had laid in meadow for six or eight years, the remainder a wheat stubble. The latter was dressed with a pretty good coat of barn-yard manure in the spring, and a part with lime. The lime, however, had but little effect. There was also one load of manure applied to one corner of the sward. This produced the best in the lot. After the corn was fairly up, part of both pieces was dressed with plaster and ashes. This made a material difference in favor of the ashes and plaster. Part of the sward was plowed deep enough to turn up about two inches of the subsoil. Of the balance, no more than the top soil was turned up. This latter produced the best corn.

But I do not wish to be understood as opposing deep plowing—I am decidedly in favor of it; but the observing farmer should always study the nature of his soil, and the manner he intends cultivating it afterwards. When we intend plowing only once in the spring for spring crops, I think it would be better not to turn up much of the subsoil, unless giving it a top-dressing of well-decomposed manure.

I intend manuring my corn ground (sward land) in the fall of the year, and to plow in the spring only a few days before planting, with a dressing of from fifteen to twenty-five bushels of lime to the acre. Then, in the fall, I will turn up several inches of the subsoil, and sow to oats in the spring, followed with rye in the fall and clover in the spring, the clover to be plowed down the second year for wheat and timothy, and this to be plowed for corn when convenient, as at first, with a dressing of lime and manure.

H. ALTFATHER.

Berlin, Somerset Co., Pa.

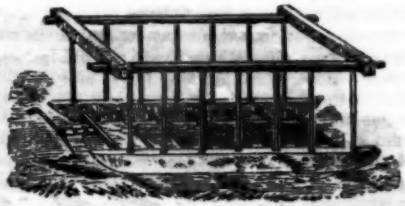
SALT YOUR STOCK.

Messrs. Editors.—I have purchased a large number of sheep for different markets. Some few years since, a gentleman rode with me several days, and I told him, before we saw the sheep, uniformly whether I could buy or not. He asked me how I told, observing that it was true, but he wished the secret. I observed that when I asked a man to show me his sheep, he would get some salt to call his sheep, so that we could see them; and when a man took two fingers and a thumb to salt with, and turn over a chip or stone to sprinkle it upon, I could not buy his sheep; I had rather turn back than go further, although we went and looked for ourselves. I saw by the two fingers and thumb, the whole man;—his sheep were poor, he fed in the same way, and set high value on all that he fed. But if a man took a handful of salt and salted plentifully, we could buy his sheep.

Another idea is, never salt in snow or frost; it will freze their faces immediately, and a sore nose is sure.

JOHN D. CHANBERLAIN.

Waterford, Washington Co., Ohio, March, 1858.

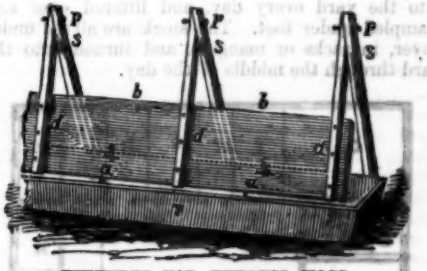


CORN STALK FODDER RACK.

Eds. Genesee Farmer:—I send you a drawing of my rack for feeding corn stalk fodder. It is simply two runners, nine feet long, of sawed scantlin, two by eight inches, sloped at each end so that it may be drawn either end foremost. The cross pieces that frame them together are three and a half feet long, and put in with a 1¼ augur. The superstructure is twenty inches high—so low that the cattle eat out of the top of it. This size will hold a shock twelve hills square, and one horse can draw it easily on the snow or frozen ground, into the field, where the fodder is put in and tramped down, and then hauled upon the poorest spots in your vacant field, or under shed, and left for the cattle to feed on.

My reason for sloping both ends of the runners is, that my fodder is shocked on my wheat, and I desire to have as little turning and tramping over it as possible, particularly in thawing weather; so, when I get my load on, I shift my team to the other end, and go back without turning, and in the same track. One of these racks full is sufficient for six head of cattle twenty-four hours.

Hanceville, Ky. D. L. ADAIR.



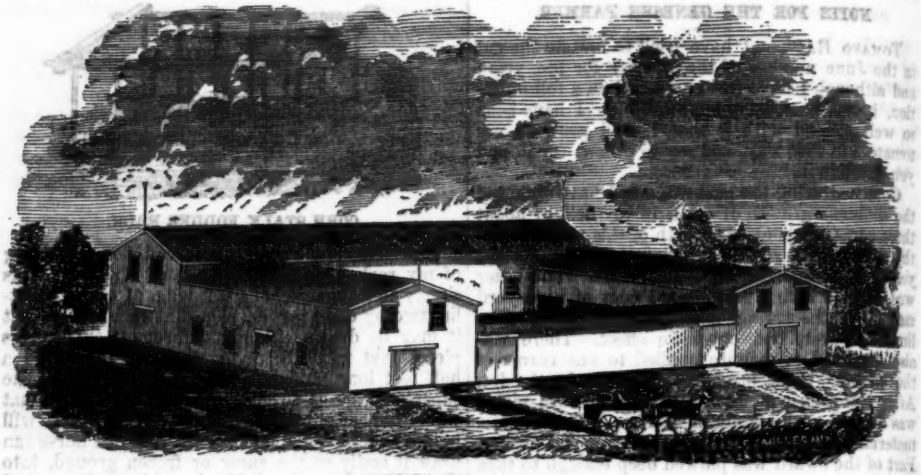
FIXTURES FOR FEEDING HOGS.

Editors Genesee Farmer:—The accompanying diagram is a sketch of the position of a trough for feeding hogs, which recommends itself as simple and convenient. The pen is framed as usual. The trough is placed outside of the studs *s*, *s*, *s*. To each of these studs is attached a scantlin (*d*) by a pin (*p*) of sufficient length to swing from the front to the back side of the trough, say five feet.—Board these to *b*, *b*, of sufficient height for the front of the pen, and attack bolts (*a*, *a*,) so as to secure it fast at each side of the trough. When the hogs are to be fed, bolt it to the back of the trough, and after the food is deposited it may be removed to the front side, and the hogs permitted to approach at the pleasure of the feeder.

B.

Harpersville, N. Y.

Two drachms of sugar of lead dissolved in a quart of water, is good for inflamed teats.

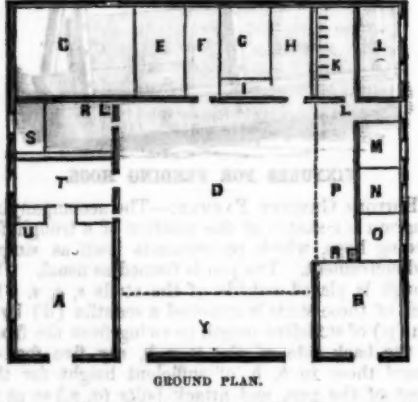


A WESTERN NEW YORK BARN.

A WESTERN NEW YORK BARN.

We have the pleasure of presenting our readers, this month, a drawing and description of a well-arranged barn belonging to Mr. Daniel E. Rogers, of Wheatland, Monroe Co., N. Y. Mr. R. kindly furnishes us with the following description:

"This plan is designed for grain growing and stock raising, and the saving of manure, which is not thrown out of every door and window about the barn, as is the usual practice. It is all wheeled into the yard every day, and littered over and trampled under foot. The stock are all fed under cover, in racks or mangers, and turned into the yard through the middle of the day.



GROUND PLAN.

"A, carriage house, 26 by 36 ft. B, work-shop and storage for farm implements or farming tools, 24 by 20 ft. C, yard for lambs and the weaker portion of the flock, with large hayloft above, 30 by 30 ft., with an out door yard for them to run out and in at pleasure. D, principal yard for cattle or sheep, with open sheds (P, Y,) on two sides. E, large bay, 20 by 30 ft. F, thrashing floor, 14 by 30 ft., raised seven feet from the ground, with storage underneath for chaff, and fall for the straw as taken by the straw-carrier to the stack at D. G, bay, 18 by 30 ft., with granary taken off that end at I, six feet wide. H, feeding floor for feeding cattle and for filling over the stables. K, cow stable; the cows stand on the ground, and the manger is up level with the floor, eighteen inches from the ground. T, stable for young stock. L, door and passage way for wheeling out manure from the stables. M, N, O, pens for hogs, pigs, or calves, with plenty of storage above for corn and hay. P, open shed. R, R, cisterns. S, room for horse feed, off from one end of feeding room. T, horse stable. U, harness room between carriage house and horse stable."

"TROUBLES," AND THEIR REMEDY.

Editors Genesee Farmer:—In the February number of your journal, J. H. B. asks for a remedy for his "troubles," which are, that in snowy and thawy weather his cattle trample their feed under foot, and do not eat it up as clean as in cold weather. No doubt the greatest reason why they do not eat it up clean, is, it becomes wet by being exposed to the storm, or the stronger ones drive the weaker ones over it, thus causing a double loss, by wasting feed and robbing those which need it most.

J. H. B. will find, if he tries it, that converting a part of his shed room into a cattle stable will be a perfect remedy for his "troubles." He can then confine those "maternal parents;" "Cherry and Beulah 2d" will get their share of the good things—will not have to suffer punishment unjustly, nor stand out in a storm while the old folks are snugly located under the shed. He can also feed his cattle with the greatest regularity, (which, by the way, is of the utmost importance,) not regulating the time of feeding, nor the quantity of food, by the state of the weather or the condition of his barn-yard, but by the demands of nature.

M. GARNSEY.

East Cobleskill, Schoharie Co., N. Y.

Old Hide-bound Meadows or Pastures are much improved by harrowing early in the spring.

REFLECTIONS ON POOR ROADS.—No. 2.

Eds. Genesee Farmer:—The hurry of business, and the "vexation of spirit" for the last three months, must be my apology for delaying No. 2 to this late day. I will now take No. 1 for my text, (September number,) and proceed, as ministers say, as I may have ability.

First, *Too much plowing and heaping up.* Now, as we look and compare closely, we see plainly that the amount of ruts and mud in the road is not in the *depth* of the ditches, but in the *quality* of the soil of which the surface of the road is composed. It is indispensable, to be sure, to have ditches on each side, not only to carry off the water, but for other uses that I will explain hereafter; but they should not be more than twelve or fifteen inches lower than the top of the road at the center, unless it is through a hill, where it is proper to connect the water on each *side* of the hill, to let it pass off. It astonishes me to observe how long the error of digging so deep and so steep has been practiced, and how heedless the great mass seem to be on the thing even yet. The roads in our level or rolling Western New York are no exception from this folly. Now, the two great objects of a highway are, to go unobstructed from place to place, and to do so with safety and comfort; but, as roads are now made and "kept in order," we are deprived of both. Who feels safe in driving along a team at night, with a load of hay, for instance, where the track of the roadway is only twelve or fourteen feet wide, the ditches two or three feet deep, and the offset nearly perpendicular, when he may meet another team with the same kind of load or some other, which might, and often does happen? What would you do? Try it before you answer. A volume might be written on the loss of property in our country, from this unpardonable stupidity in the construction and management of roads, the anxiety and fear we undergo, especially if we happen to be caught out after dark, to say nothing about broken limbs or broken heads, the great bulk of which has been caused by the want of system in this all important matter. So much for the first part of the text.

Second, *Too little care in constructing water-courses across the road.* On this point, I would say that the permanency and durability of a road depends, in a great measure, on the manner of carrying off the water. *All should be carried off*, as well from the center as from the outside. Let it run freely, both ways, into the ditches; thence to the lowest point, where it must unite by a sluice across the road, and then depart. A mode is laid down in No. 1. Be sure and have a stone or plank floor placed, together with the sluice, (in all small ones, at least,) entirely below the reach of frost. The water will find its way through, if it *is* down deep.

Third, *Not precision or mechanism enough in the general features of them.* The center of the road, as said in No. 1, should be one foot or more above the bottom of the ditches, with a *convex* surface from ditch to ditch, twenty-four feet, precisely in the middle of the survey. These ditches should be made with a regular *concave* surface, and wide enough to admit a team and sleigh to pass along comfortably in them. Particular care should be taken to keep them clear from all obstructions at all times of the year, so that the water will pass off freely, and permit a sleigh to pass freely when the snow is blown from the center of the road.

A few words on the *shape* of roads at present, and I am done. Let any one that *thinks* once a day, take a look as he travels ten miles. He will see that the track is sometimes close to one fence—perhaps only room for such a ditch as he would cut to put drain tile in,—then off to the other side, as though to accommodate a drunken man—in many places not more than ten or twelve feet wide, two or three feet to the bottom of the ditch, and that right up and down—the bank next the ditch always higher than the track—the ruts "hub deep" and full of mud, and nowhere for it to escape except to dry up or soak away—the crossways made of cobbles and plank ten feet long—when he goes on a dry hill, finds the ruts well stored with cobbles. Oh, the safety and comfort in this "refined age!" The more I reflect on it, the more I am convinced of the importance of devoting the time (after getting the roads in the proper shape) to gravelling. Draw gravel, and make the track hard and rounding; keep the middle the highest, so that the water will run off. If a deep rut occurs, have it the duty of some one to fill it up directly, and prevent it from becoming a mud hole, which always grows worse day by day.

The reader of this may think that I am greatly exercised on this subject. So I am, every time I attempt to ride; and let any one who has not tried it, start out and try a fifty mile ride in a trough road full of ruts, stones, and mud, and he will be exercised too.

JOEL HOUGHTON.

Adam's Basin, N. Y., Jan'y, 1858.

FANCIED FACTS.—No. 1.

Economy.—When I see a man plowing for corn, six or seven inches deep, where the clover has failed from neglect to plaster, early and late pasturing, or is bound out with June grass; or, what is worse, where no clover has been sown at all; I fancy that he is paying a dear price for corn. And then, late in the fall, after the corn is got out of the way, when the same ground is sown with wheat, I fancy that a light harvest will be his reward.

> The fact but proves the fancy true,
> As all such crops will plainly shew.

If my friend thinks of sowing wheat then and there, for the sake of a chance to seed to clover, (which is the usual excuse for such mal-practice,) I fancy it would savor more of economy to save his seed wheat, and sow his clover with some other crop, in the spring, with manure if possible; and if not, then on early sown buckwheat, which, if it fails to fill so as to be worth cutting, may be left on the ground to rot.

I fancy, too, that it would be no mis-economy for my friend to take the *Genesee Farmer*, and read it, and then *think* and *dig*, deep and thorough, and less of the surface; and that he might thus reap more grain from less ground, more profit from better stock, and find himself in possession of a swelling purse and an enlarging mind.

When a farmer sells his crop for a high price, and has money for which he has no immediate use, and by paying which he can obtain credit for the remainder of a proportionally high price for more land, showy buildings, fast horses, or fine carriages,

I fancy that less money for his crop would have been more in his pocket! And when a crisis comes and finds him in debt for property which will not fetch what he owes for it, and he feels too poor to pay for the *Genesee Farmer*, I am confirmed in the conviction. And when I consider that if the spare change had been laid by for a rainy day, that it would now buy double the amount that it did when expended, I fancy that buying—especially on credit—in *high-price* times, is anything but economy.

When a tiller of the soil refuses to subscribe for the *Genesee Farmer* at three-eighths of a dollar a year, on account of the scarcity of money, I fancy that he is more parsimonious than economical. And when I suggest that the price is perfectly adapted to such hard times, and that the lack of such a sum is a very slight objection, he contends that he must have some favorite political or story paper, costing a dollar or two, and four times the postage of the *Farmer*, I fancy that, however finely he may talk politics, or criticise *literature*, he is not a progressive farmer, and exhibits but little knowledge of practical economy.

Four Towns, Mich., Jan'y, 1858.

CHOICE OF FARMING AS A PROFESSION FOR LIFE.

Editors Genesee Farmer:—Among the many thousands of families to which your paper makes its monthly visits, carrying its varied and welcome store of information and wisdom, there must be many in which the question is sometimes revolved as to the choice, by one or more of the members, of a profession for life. A few thoughts on this topic, even though not new to the reader, may, as coming from another, be not wholly unacceptable.

And here allow me to express the belief that there ought to be encouraged more widely than would seem to be the case, the habit of looking to some *one* occupation or business, with a view to its being pursued through life. The peculiar circumstances which have heretofore made it to some extent necessary in our country, that a man should be upon the watch and ready to jump into any new business that may seem to promise more for his interest, or to have two or three different ones in hand at the same time, are now somewhat changed. At all events, this trait can not be considered as rightly belonging to a settled and well-regulated state of society.

No young man who has arrived at the time when this question should be considered, should allow himself to live along, carelessly waiting to see what chance may throw in his way, looking for some easy and quick way for making money; or, what is worse still, willing to live, if he can, without any regular business. Such a disposition is both a sign and a cause of something wrong, and productive of great evil.

But supposing a young man who has before him a choice as to what shall be his employment for life, and is willing, as he should be, to listen to the advice of parents or friends,—who may, after all, know better than himself in what he may be most likely to succeed;—supposing he is trying to decide this important question: *On what principle ought his decision to be governed?* Ought it to be that of the quickest and largest accumulation of money? This is a point which ought to be well weighed. If this should be allowed to be the governing principle, then there are, without doubt, other occupations than that of farming, which hold out the most flattering promises. That there have been instances—though few, after all, in comparison with the failures in the same attempt—where fortunes have been accumulated in our great commercial cities, far beyond what the profits of the farm can ever hope to equal, is certainly true; but I think it will hardly be contended, by any reasonable person, that such enormous and overgrown fortunes, springing from sudden and unusual gains, tend to the real welfare either of individuals or society. A more equable distribution of wealth, and more gradual acquisition, are doubtless more desirable in a republic like ours. This subject, however, need not here be discussed at length.

Allow me, then, to state what appears to me a more reasonable and wiser principle, as well as one much more likely to be successful in answer to all ordinary efforts. It is the principle of *fulfilling the most honorable, useful, and happy life.*

Taking this to be a true principle to lay at the foundation of a man's life and efforts, it will not be difficult, I think, to show that farming offers greater advantages for such an object, than any other of the ordinary or secular occupations in society.

I will not, Messrs. Editors, trespass upon your crowded pages, to pursue this subject further at present. If the suggestion of this thought to the mind of any young man yet undecided as to his future course, may lead him into reflections upon the true object of life, and help him to distinguish between the true and the false—between that which is real and that which is but sham,—my object will be abundantly successful. Some abler pen than mine may perhaps see fit to carry out my argument, and present to your readers, in a future number, the reasons showing that farming offers greater advantages than any other business, for fulfilling the most honorable, useful, and happy life.

SUBURBAN.

CASTOR BEANS AND GROUND MOLES.

Eds. Genesee Farmer:—I hear many farmers complain of ground moles, as though they committed great depredations on their grounds. Now, I am inclined to believe that the moles get the credit, while mice actually do the mischief. That moles do burrow in the ground and throw up small ridges of earth, I admit; but they are at the same time in search of, and do certainly destroy, vast numbers of wire worms, of which they appear to be very fond. I have never found a mole in a shock of corn or wheat, or, in short, any other place where I was convinced he was doing any injury otherwise than by those small underground canals, which they seldom travel a second time, but seek their food in a new place, where the wire worm has not been already ferretted out, by which means they benefit us a vast deal more than they injure us by the little upheaving of such narrow and shallow cuttings. Yet I would state, for the benefit of those who are desirous of getting rid of them, that it is said, on pretty good authority, that a few Castor beans (*Palma Christa*) planted where the moles are most troublesome, will have the effect to drive them away.

D.

Gates, N. Y., February, 1858.

THE FARMER'S VEGETABLE GARDEN.

While American farmers, as a class, pay more attention to the culture of fruit, perhaps, than those of any other country, they sadly neglect their kitchen gardens. In fact, few farmers can be said to have any garden worthy of the name. Many of our wealthiest farmers have gardens that would disgrace the poorest cottager on an English farm. Sit down to dinner with our best farmers, in the summer months, and you will find plenty of salt pork, sour pickles, and rich pastry; but where will you find a table well supplied with early vegetables? Farmers have every facility for obtaining the greatest variety of garden products, at all seasons; and yet the occupants of small lots in our rural villages have usually better gardens than the majority of farmers. We would urge farmers to let their sons pay more attention to horticulture. Our farmers compel their sons to do too much of the drudgery of agriculture. Let them spend more time in the garden. They will then see the advantage of thorough culture, and learn many things that they will in after years put in practice on the farm.—We hope our young readers will take hold of this matter. To such, a few hints may be useful.

If your garden is not naturally well drained, the first thing to be done is to underdrain it. The warmest and driest portion should be spaded for a few early crops, as soon as the soil is in working condition. It should not be touched when wet.

Peas.—Sow a few rows of the *Prince Albert*, or some other early variety, as soon as the ground can be got ready. A quart of this variety will be sufficient for a small family. It is a dwarf grower, and will do without poling, though of course, much better with. The *Dan. O'Rourke* is one of the best and earliest varieties. The *Champion of England* is one of the very best "second early" varieties yet introduced. It is a vigorous grower, a good bearer, and of most delicious flavor. Peas are generally sown too thick. A pint, according to the size of the peas and the vigor of their growth, will be sufficient for a row from fifty to seventy feet in length. The old practice of treading them in, especially if the ground is moist, should be discontinued. They should be covered with from two to three inches of fine earth. A little plaster scattered on top of the row will be beneficial. We prefer to sow in single rows from three and a half to four feet apart.

Potatoes.—A few rows of an early variety, such as the *Early June*, should be planted in a warm part of the garden as early as possible, in rows two feet apart, and ten to twelve inches in the rows. The sets may be started in a hot-bed or warm room, with advantage.

Lettuce.—If you have any plants in a hot-bed, transplant them into the open ground, as soon as the weather becomes warm, in rows a foot apart.—If not, sow the seed in a warm border as soon as possible. Do not be sparing of seed, as the plants can be thinned out and furnish a supply of small lettuce early. It is best to sow them sufficiently far apart to admit the use of the hoe. Frequent hoeing is very beneficial. There is nothing so good for lettuce as superphosphate of lime sown with the seed. Plaster is also good.

Radishes are frequently sown broadcast on the onion beds, but we prefer to sow them in drills in a bed by themselves. The seed should be buried a little deeper than lettuce, say half an inch. Sow plenty of seed, so as to have plants enough for the fly and for a crop.

Cabbage.—Sow some *Early York* or *Early Winningstadt* cabbage, or *Early Paris* cauliflowers, either on a gentle hot-bed, or in a warm and sheltered spot, as soon as the ground is in a fit condition. A little Peruvian guano (say four pounds to a square rod,) forked into the bed before the seed is sown, will give the plants an early start, and they will be more likely to escape injury from the fly. Superphosphate of lime, sown with the seed, is a still better manure for this purpose. Eight or ten pounds to the square rod may be used. It will not injure the seed, and will cause the plant to grow so fast that the fly can not hurt them.

Onions should always be sown in drills sufficiently wide to admit the use of the hoe. In this way much labor in weeding is saved. Onions prefer a rather heavy loam, if it is rich and thoroughly pulverized. A light soil is apt to induce the growth of tops rather than bulbs. If intended to be used while young for salad, a warm sandy soil is best.—As a general rule, however, it is best to sow the main crop sufficiently thick to furnish abundance of young plants for salad in the progress of thinning. This must be by no means neglected, or the plants will become weak and drawn up. The crop is frequently injured by thick seeding and neglecting to thin out early. An ounce of good seed, when sown in drills, is sufficient for a bed four feet wide and twenty-four feet long. Like wheat and clover, onions thrive best in a compact soil, and it

would be desirable to roll the beds with a hand roller, or to batter them with the back of the spade.

CARROTS.—The *Early Short Horn* is the best carrot for table use. When rapidly grown and not too large, they are delicious. Sow them on a rich, warm, light soil, in rows a foot apart. Do not be sparing of seed, but thin out as soon as the carrots are large enough to eat, or sooner if necessary.—No error is more common than leaving plants too thick in the garden. For the main crop, the carrots should be thinned out to at least three or four inches apart in the rows.

Much labor in weeding may be saved by hoeing lightly between the rows as soon as the carrots can be distinguished. A few radish seeds are sometimes scattered along the drills with the carrot seed, and coming up early, serve to indicate the rows, before the carrots can be distinctly traced.—They should be pulled up before they injure the carrots.

TOMATOES.—The able articles published last month on the cultivation of tomatoes, render any further remarks unnecessary. This vegetable is so delicious and healthy, so easily raised, and so productive, that every farmer should see to it that he has an abundance. An experienced tomato grower informs us that self-sown seed, which has been in the ground all winter, will produce an earlier crop than plants raised from seed sown in the open ground in the spring.

PARSLEY should be sown as early as possible, in rows fifteen inches apart, and the plants thinned out four inches apart in the rows. It may be sown as a border around beds or walks.

SHRUBS FOR THE THE LAWN.

FOR the sake of our readers who are intending to make additions to their ornamental plants this spring, or are planting new grounds, we will give short descriptions of a few of the finest hardy ornamental shrubs, which, although they have at different times been described before, it may not be unprofitable again to present at this season of the year.

One of the first in the order of flowering shrubs, is the *Daphne mezereum*, popularly called Mezereon. This plant is a native of Europe. It is a low shrub, attaining the height of four feet, and is greatly admired for its beautiful and fragrant flowers and bright red berries. "The French call it 'genteel wood,' and 'pretty wood;' the Italians, 'the fair plant;' the Germans, 'silky bark;' and even the grave Spaniards term it, 'the lady laurel.'" The flowers, which are pink in one variety and white in another, literally cover the plant, in March or early in April. The berries, as well as the whole plant, are highly poisonous when eaten; and children, to whom they are attractive, should be taught not to pluck them.

Allied to this plant in the same Natural Order, is the *Dirca palustris*, or Leatherwood, growing in the forests throughout the United States, and Canadas, which might be extensively introduced into our gardens with a desirable effect. The yellow, funnel-shaped flowers, issuing three together from the same bud, appear much earlier than the leaves, and are succeeded by small, red, oval berries.

Forsythia viridissima.—This shrub was introduced from China, by FORTUNE, a few years since, into England, and thence into this country. DOWNING proposed to give it, for an English name, Golden Bell, but it does not seem to have been generally adopted. Very early in the spring, before its foliage appears, it is covered with bright, yellow flowers, making it a very attractive ornament in the garden, before other vegetation has started. The leaves are large, pointed, and of a very beautiful deep green color It is worthy a place in every collection, and in a few years it will, no doubt, become as well known and as much admired as many of the older shrubs.

Spiræa.—There are many species of this genus which are indispensable in any collection of shrubs. Indeed, they should demand the first attention of planters. They are of easy culture, and some varieties begin to blossom in May, and others in succession for a period of three or four months.—Among the finest species may be mentioned *S. prunifolia flore pleno*, or the double-flowering plum-leaved, which is a profuse bloomer, and the blossoms look like small, double, white daisies, covering its slender branches. It flowers in May. *S. lanceolata*, or *Reevesii*, is a beautiful species, with large, round heads of pure white flowers, blooming in May. *S. Douglassi* has elegant spikes of delicate rose-colored flowers in July and August. *S. Fortunei*, or *callosa*, has only been lately introduced, and is one of the very finest. It has large clusters of beautiful rose-colored flowers. It is a thrifty grower, and is in blossom a great part of the summer. There are many other desirable sorts, among which are, *grandiflora*, *Niconderti*, *Sinensis*, *ulmifolia*, etc.

Weigela rosea, or *Rose-Colored Weigela.*—This plant also was found by FORTUNE in China; and it is one of the most charming shrubs of which our northern climate can boast. When in blossom, in May and June, it is a perfect mass of rose-colored flowers, than which nothing can be more beautiful.

Philadelphus coronarius—*Syringa*, or *Mock Orange.*—This shrub grows from five to eight feet high, and produces in June numerous pure white flowers, resembling orange blossoms in form and fragrance.

Amygdalus pumila—*Dwarf Double-flowering Almond.*—A beautiful little shrub, producing, early in the spring, in the greatest profusion, small, double, rose-colored flowers.

Deutzia gracilis.—Introduced from Japan a few years since. It grows about three feet high, with somewhat of a drooping habit, and bears clusters of delicate white blossoms in May.

Syringa.—The Lilacs are too well known to need descriptions, and too generally admired to admit of recommendation. We would now only call attention to the Persian varieties, which seldom grow to more than half the size of the common Lilac, and are profuse bloomers, and on lawns are preferable to the common sorts.

Althea frutex—*Rose of Sharon.*—This is a beautiful free-flowering shrub, growing from five to ten feet high. There are many varieties, producing purple, red, blue, and variegated and double flowers of the form of Hollyhocks, but somewhat smaller. It blossoms in August and September, and can not be too generally planted.

In the following extract from COWPER'S *Task*, in the Winter Walk at Noon, we find allusion made to many well known plants:

"These naked shoots,
Barren as lances, among which the wind
Makes wintry music, sighing as it goes,
Shall put their graceful foliage on again,
And more aspiring, and with ampler spread,
Shall boast new charms, and more than they have lost.
Then each in its peculiar honors clad,
Shall publish even to the distant eye
Its family and tribe. Laburnum, rich
In streaming gold; syringa, ivory pure;
The scentless and the scented rose; this red
And of an humbler growth, the other* tall,
And throwing up into the darkest gloom
Of neighboring cypress, or more sable yew,
Her silver globes, light as the foamy surf
That the wind severs from the broken wave;
The lilac, various in array, now white,
Now sanguine, and her beauteous head now set
With purple spikes pyramidal, as if
Studious of ornament, yet unresolved
Which hue she most approved, she chose them all;
Copious of flowers, the woodbine, pale and wan
But well compensating her sickly looks
With never-cloying odors, early and late;
Hypericum all bloom, so thick a swarm
Of flowers like flies clothing her slender rods,
That scarce a leaf appears; mezereon too,
Though leafless, well-attired, and thick beset,
With blushing wreaths, investing every spray;
Althæa with the purple eye; the broom,
Yellow and bright, as bullion unalloyed,
Her blossoms; and luxuriant above all
The jasmine, throwing wide her elegant sweets,
The deep dark green of whose unvarnished leaf
Makes more conspicuous, and illumines more,
The bright profusions of her scattered stars.—
These have been, and these shall be, in their day
And all this uniform uncolored scene
Shall be dismantled of its fleecy load,
And flush into variety again.

* The Guelder-rose.

MASSACHUSETTS HORTICULTURAL SOCIETY.

We make the following extract from the Report of the Committee on Fruits for the year 1857:—

PEARS—*Preparing for Market.*—A Sub-Committee visited the fruit garden of Mr. JOHN GORDON, Brighton, which comprises some three or four acres, the most part of which has been deeply trenched and underdrained. The grounds are entirely covered with pear trees, thickly planted, about two-thirds of which are on the quince—and so thickly planted that he does not grow vegetables (as a general thing) among his trees. Mr. GORDON confines himself to only a few varieties, since he grows for market, and by experience has learned what varieties will and what will not pay a handsome return. He says he finds a ready sale for those having a reddish or russety skin, while those with a green skin could not be disposed of. All his fruit is carefully gathered by hand, and some four days before designing to market it he takes his fruit boxes, which are about twenty inches square and six or eight inches deep, and places some woolen substance over the inside bottom; he then places a layer of pears and then another layer of woolen, and another layer of pears, covering the whole with woolen.—In no case does he pack more than two layers of fruit.

The fruit is then allowed to go through a *sweating process*, which serves to give it a rich coloring, and it is then sufficiently ripened for market. We asked him if cotton batting would not answer the same purpose? He said that cotton would not ripen them so fast; that some woolen substance was better, as being more expeditious, and that it left a finer blush on the skin.

Mr. GORDON is noted for his fine specimens of pears, which command the highest price. He instanced a fact in regard to his *Bartletts*, that, "while his were yielding him ten dollars per bushel, other wagons, by the side of his, had pears of the same variety, equally as large, but in consequence of retaining the green skin were offered at three dollars per bushel."

New Varieties.—*Merriam*, a native, which has seemed to escape the attention of pear cultivators, though known for several years, has been shown in remarkable excellence, attracting the attention of all by its rich warm russet hue, and satisfying all by its many fine qualities; it will become one of the most popular market pears, being an enormous bearer, ripening well, and coming in at a favorable season just after the *Bartlett*.

The *Supreme de Quimper*, exhibited by the Messrs. HOVEY, proved one of the best early pears, quite equal to the *Doyenné d'Eté*, and much larger; it will compare favorably with any of the summer varieties, of which the number is yet limited.

The *Beurré Clairgeau* has been exhibited by several cultivators, and in various stages of excellence as well as beauty. Though the Committee found much difference in the quality of the specimens tested, they believe that when the trees are more advanced and well established, it will prove equal to its reputation. Age is undoubtedly required with this as well as with many other pear trees, before the true qualities of the fruit can be ascertained. Its size and beauty, in addition to its good qualities, will render it a popular kind.

Apples.—A single dish of the *Melon* (*Norton's Melon*) was exhibited. This apple originated in the State of New York, is slow of growth while young, but proves prolific, is a handsome apple, of delicious flavor, and is in eating from November to February. Red apples, on a yellow or russety ground, command a good price for the table, when it would be difficult to dispose of such as have a green skin. For this reason, the *Gravenstein*, *Hubbardston*, *Fameuse*, *Polish*, *Mother*, and *Baldwin*, are sold readily for dressing off tables. Sweet apples, during winter, also command a good price.

Blackberries have been brought in abundantly during its season, and for a much longer time than usual. Mr. James Nugent continued to show them, for the reason that the first shown were grown on a southern exposure, while those shown at a later day were grown under a northern exposure. The variety shown by Mr. Nugent was the *Dorchester*, and it will be noticed that every premium was carried off by the *Dorchester*, though the *Lawton* was shown in abundance. And it is worthy of mention, that in each and every instance where the Committee questioned the contributors for the purpose of learning their individual opinion as to the merits of the one or the other variety for market, there was not a single dissenting voice as to the superiority of the *Dorchester* over the *Lawton*—in fact, nearly all said they should abandon the cultivation of the *Lawton* as not repaying them sufficiently well while they could have the *Dorchester*.

Though some of the Committee believe both possess merit, a large minority do not deem the *Lawton* even worth cultivating, except for a small garden, where they can be picked and such as are ripe selected for the table; if picked previous to maturity it is not even palatable. While the *Dorchester* is not lacking in any one requisite which the *Lawton* possesses, it is superior in many respects to the latter. The *Dorchester* is of superior flavor; the berry is much larger; is equally as hardy, and fully as prolific, and when ripened bears carriage, and therein is decidedly superior to the *Lawton*.—The former retains its black lustral quality, while the latter, immediately after picking, changes to a reddish bronze, and to most tastes its sour or acidulous flavor is not agreeable, and it would require an additional amount of sugar to make it palatable. The Committee have carefully tested them during the last two years, and opinion is unanimous in favor of the *Dorchester*. The *Dorchester* is a seedling; so, also, is the *Lawton*, (though it is a mooted question,) and *not* the common blackberry, which springs up by the wayside, and is sometimes transplanted for garden culture in the vain hope of its proving equal with the two above named.

We would again remind our cultivators that to ensure a prolific crop it is absolutely necessary to train the stalks horizontally in order that shoots may break at every eye, while, if allowed to grow upright, they only break at the top. Mr. Merriam, who has had most eminent success in fruiting it, says he does not obtain a full crop until the third year of planting.

Gooseberries.—There does not seem to have been much headway made in the culture of gooseberries since the introduction of *Houghton's Seedling*, some twenty years since; and we are surprised that no good seedlings have been brought to notice till within the last year or two. We now have the promise of a superior seedling, raised from the *Houghton*, which, like the original, is not subject to mildew. It was produced by Mr. Charles Downing; another by the Shakers at Lebanon, N. Y. and still another by Mr. Smith of Vermont. All three give good promise as to quality, fruitfulness and freedon from mildew.

Grapes.—A letter from J. Fisk Allen to Edw Wight, the Chairman of the Fruit Committee, contains the following:—

In reply to your queries I would say, that the noticeable fact in grape culture in our vicinity the past season of 1857, has been the great increase of mildew, and the crop of fruit has been greatly diminished thereby. The wild grape, as well as the *Isabella* and *Diana*, have been attacked—the *Clinton*, in my garden, being the only variety that has not been affected. The *Diana* escaped with only slight injury, but the fruit suffered somewhat from the rot, a rare occurrence with any variety in our section. Notwithstanding an unusual amount of rain and cloudy weather, the mildness of the autumn enabled the *Isabella* and *Diana* vines to ripen crops of fine grapes, when sulphur had been used in quantity sufficient to check the mildew.—A vine on the south of my dwelling yielded one hundred pounds of as rich, sweet fruit as ever the South produced; and this vine, for thirteen years, has never failed to mature a full crop.

The *Union Village* and the *Rebecca* both mildewed more than the *Diana*. The *Delaware*, in our vicinity, did mildew some, but slightly.

It appears that the prospect for success in the field or vineyard culture of the grape in Massachussetts is not very flattering. On walls fronting from south-southeast, round on the southern side to west-northwest, they will do well; an eastern exposure is subject to mildew.

The question relative to the *Barbarossa* grape may be considered as settled. The *Prince Albert* and *Barbarossa*, if not identical, are so like as not to be worthy of distinctive names. The foliage and manner of growth, which is peculiar, is similar in both. The fruit is sweet, hard, good and valuable for its late maturity, but it is inferior to the *Black Hamburgh*. I have suspended a part of a bunch of the *Barbarossa* with the *Prince Albert* on a fruiting vine. By testing the flavor and firmness of the berry in eating the fruit, first of one and then of the other, and by comparing the size and form of the berry, I have concluded that I can discover not the slightest difference between them.

Grapes—Open Culture.—It is but a few years since we could speak of our native grapes in higher commendation than we now speak of the wild grape of the woods, of a foxy smell and hard pulp.—Such vines are often transplanted from their wild state to the homestead, with the expectation of an improvement in quality. The object is *futile*, for all manuring and care will never divest it of its hard pulp or foxiness. There are some who never have tasted anything better, and still adhere with tenacity to a hard pulp and strong foxy flavor, believing it the best grape grown. Such an one was the man who was recently shown a handsome bunch of the *Rebecca*, and advised to plant a vine

of this variety. He insisted that he had a large white grape, which he had transplanted from the woods, and "so perfectly delicious was it, that it could be smelt over the whole house."

The new varieties have attracted much attention, since we have little or no hope of success with either the *Catawba* or *Isabella*, except in the most favorable location, in this region. Mr. CUTTER has shown the *Isabella*, thoug hardly equalling those of past years, while Mr. GRANT has shown the *Isabella* and *Catawba*. Some few others have shown the *Isabella*, grown in the city or in the immediate vicinity. This, however, is no criterion for general culture, for we have had *Black Hamburghs*, *Sweetwater*, and other tender grapes grown on walls in the city. What we want, is a grape of a quality not inferior to the *Isabella*, and ripening seasonably to insure a crop previous to the autumn frosts, unless the mildew should prove destructive—and, from its ravages the past season, we have reason to fear our worst predictions may be verified, unless, with the aid of sulphur, it should be stopped.

The *Concord*, so often spoken of heretofore, has ripened in many instances where the *Isabella* has failed. Mr. BULL has shown them in abundance, but few others have done so, probably for the reason that it has not been planted out a sufficient length of time to allow of a liberal show. Those shown by Mr. B. were large, both in bunch and berry, and few grapes prove more attractive than does the *Concord*, with its rich bloom overlaying every berry. It is a valuable acquisition, and Mr. B. is deserving of a liberal reward for his patient waiting, biding the time when the community will say he should be amply compensated for originating so valuable a grape.

The *Rebecca* has now become so popular for its early ripening, good qualities and hardiness that if not already in the hands of most grape growers, it soon will be. It is one of the most valuable grapes for out-door culture that has ever been introduced amongst us; and then, too, it is so easy of propagation, that in the hands of almost any person it can be multiplied ad libitum.

Not so, however, with the *Delaware;* this proves one of the most difficult of propagation, either from eyes, cuttings or layers, hence it must for a length of time be procured with difficulty. We regret this for it is one of the most valuable not only for its earliness of ripening, but for its hardiness in withstanding almost any degree of cold to which it can ever be subjected. The Chairman of your Committee has had a vine of this variety planted out for four years, which withstood the winter of 1856-7, without injury to the extent of a single inch of even the smallest shoot, while an *Isabella* of the same age and on the same trellis was killed, both root and branch; the *Diana*, alongside, was killed to the ground.

The *Delaware*, on its fourth year, was allowed to ripen fifty bunches, which, for the table, proved most desirable. As a table-grape we see no reason why it is not equal to the *Rose Chasselas;* at least, it is a good substitute for either that or the *Red Traminer*. The past season, (for the first time,) it was subject to mildew, though slightly, when compared with other varieties in its immediate vicinity.

The mildew has been the most serious drawback we have to contend with in open culture; at least such was the difficulty the past season, and unless the application of sulphur will serve to retard it, we do not see any reason why we may not be obliged to abandon the culture of the vine. The free use of sulphur accomplishes its object under glass, and perhaps there is no good reason why it should not for out-door culture. The past season was so wet that the mildew was much more serious in its ravages than in any former period within our recollection.

The *Union* (*Union Village*) has this year surpassed those of any former exhibition; the bunches weighed more than one pound each, and the berries were considerably larger than the general average of *Black Hamburghs* as we find them on the tables of the Society. The grapes were shown by E. A. BRACKETT, Winchester, and since Mr. BRACKETT, prides himself on the introduction of this seedling (from the *Isabella*,) it is fair to presume that by judicious thinning of the branches and constant attention for the encouragement of its growth he has determined to astonish the public: however, what has been done can be done again by others.

In corroboration of its resemblance to the *Black Hamburgh*, we will mention an anecdote, which seems well vouched. A distinguished culturist of the vine, and probably the largest in this country, (who is a dear lover of this variety for his family board,) presented bunches at the exhibition of one of the most distinguished of our sister Societies, whose judges are not second to those of any kindred Association. Accompanying the grapes he sent a note, asking if they had ever seen better grown *Black Hamburghs*? So close was the resemblance of bunch and berry, that the highest premium was awarded the contributor as the best *Black Hamburghs*, and the judges were not aware of their mistake till informed by the contributor. The berry has not the consistency of the *Hamburgh*, while it possesses a sweetness at once distinguishable even to the most common observer, and it is fair to presume that the Committee neglected testing the fruit. It is one of the most rampant growers, and Mr. BRACKETT *claims* that it will ripen as early as the *Isabella*.—Of this fact we cannot speak any more decidedly till it shall have become more widely disseminated, and in other hands and other localities, for we should judge the location selected by Mr. BRACKETT as most favorable for the fruiting of the vine. On referring to Mr. ALLEN's communication it will be seen that the *Union*, as well as the *Rebecca*, did mildew. The *Union*, in possession of your Chairman, did not show a particle of mildew. It was planted in ground, the subsoil of which is a coarse gravel, and the field had been subsoiled to the depth of two feet or more. There was also in the same row, to stakes or posts, the *Concord*, *Isabella* (CUTTER's,) *Diana* and *Breck*, none of which showed mildew in the least. To be sure, the drainage was, as a matter of course, good, and to this fact alone may possibly be attributed the escape from mildew.

The *Logan* is a new grape, and was this year introduced for the first time at our Annual Exhibition, by GEO. W. CAMPBELL, Delaware, Ohio. It is a black grape, with a rich blue bloom, larger than the *Diana*, but not so large as the *Isabella*.—The bunches were of the size of the *Diana*. We should judge that it must ripen earlier than any other grape with which we are acquainted, and this

fact, added to its good quality and sweet flavor, will insure its rapid introduction to notice. We have the pleasure of introducing the history (so far as known) of the *Logan*, from Mr. THOMPSON:—

"DELAWARE, OHIO, January 9, 1858.

"EBEN WIGHT, *Ch'n. Fruit Com. Mass. Hort. Soc.*

"*Dear Sir*:—In compliance with the request contained in your favor of 31st ult., I with pleasure give such information as I am in possession of regarding the history of the *Logan* grape.

"My attention was attracted to it some four or five years since in one of the Miami Valley counties, where it was cultivated both as the *Catawba* and the *Isabella*, though bearing not a particle of resemblance to either, being as distinct from them in fruit, wood and foliage, as is the *Delaware*. The authorities as to its origin I found conflicting—one party claiming that it came from the woods in Logan County in this State: the other, that the first vine is from one of a promiscuous lot of cuttings received from a distant friend, and planted by a lady. The first party claims that the fruit was cultivated in that locality long anterior to the planting of the cutting referred to—the other admits that the grape *he* refers to was cultivated before the cutting was planted, but insists that *hers* is a different, an earlier and better fruit. My opinion, as at present advised, is that the fruit and vines are identical, the better location of that from the cutting (south side of a house) accounting for its earlier ripening. My opportunities for comparison have not, however, been such as would be desirable in order to warrent a positive decision; but I am now testing the matter myself, on my own premises, and hope soon to be able to settle that point.

"The vine is a fair grower, leaves deeply serrated, wood short-jointed, and of that firm compact texture which is indicative of hardiness, the young shoots covered with an outer bark of a peculiar gray color, and the old wood presenting an unusually rough and ragged exterior. It is a profuse bearer, the bunches, when left unpruned and illy attended, generally small and loose, but under good culture of good size, and compact; the berries nearly round, deep black, and covered with a handsome bloom; quality better, in my view, than the *Isabella*; and in this opinion I am sustained by most judges of fruit who have tested it. It is thoroughly hardy, and may, I think, safely be called our *very earliest* grape of good quality.

"Not recognizing it as any grape with which we are acquainted, and being unable to have its identity established through others, myself and a horticultural friend and admirer of the fruit, concluded to call it *Logan*, in reference to the supposed place of its origin, and as a compliment to the memory of the distinguished Indian chief of that name.

Yours, truly, A. THOMPSON."

Mr. Thomson is a distinguished horticulturist, and his name is familiar to the readers of the *Horticulturist* and *Hovey's Magazine* as the person who was most instrumental in bringing to notice the *Delaware* grape. Here we have in the *Logan*, the promise of a grape, ripening earlier than almost any other, leading us to hope, that, ere long, through the aid of seedlings from this and others, we may attain all that we have desired in past years for open culture.

There are yet several other seedlings of great promise as to quality, earliness and hardiness, the properties of which we think we cannot be mistaken in, that will not be brought to the notice of the public till they shall have been thoroughly tested by the originators.

We had intended saying something of seedling grapes, heretofore spoken of in former reports, but the room already occupied under this head prevents our extending the remarks at this time.

We introduce a letter from E. A. BRACKETT, in reference to the character of various new grapes, and their growth the past season:—

WINCHESTER, January 2, 1858.

EBEN. WIGHT, *Ch'n. Fruit Com. of Mass. Hort. Soc.*

Dear Sir:—I have received your inquiry respecting my vines. I need not say that the past season has been a poor one for open culture. Almost every vine in my vineyard has suffered from mildew. My crops of the *Diana*, *Concord*, *Isabella*, and *Wyman*, were entirely cut off. Indeed the only specimen of ripe fruit I obtained were from the *Delaware* and the *Union*.

The *Concord* has never been a favorite with me as a table grape; but from some experiments I have made, and from samples I have received from Mr. BULL, I am satisfied that a wine may be made from it not inferior to the best brown sherry. If such should prove to be the case, this grape will assume an importance that will more than compensate for any disappointment felt respecting its flavor.

The *Delaware* is a most delicious grape for this climate. It is a good bearer, ripening its fruit some three weeks earlier than the *Isabella*, while the vine is as hardy as an oak. I received the *Union* grape from Mr. LONGWORTH of Cincinnati. In his note to me he stated 'that it was a larger grape than the *Black Hamburgh*, thinner skin, softer pulp and more juicy.' I have found it fully up to his statement. With me it ripens from a week to ten days earlier than the *Isabella*. The fruit I have shown at your rooms have never received any special care or attention, and I have no doubt that bunches may be grown twice as large as any I have exhibited. It is an enormous grower, making wood double the size of any other vine. In a light sandy or gravelly soil it succeeds well, making short-jointed canes, and producing a good crop of fine fruit.

"Those who follow the prevailing notions of grape culture, and plant this vine in one of those compost or manure heaps called borders, will be astonished at its growth, and still more astonished *when* they *see* the fruit.

"It is important to those who wish to grow the *Union* grape in this section of the country, either to adopt the system of training detailed to you in a former letter, (see the Report of 1857,) or resort to some other method to check its over luxuriance.

Yours, truly, A. E. BRACKETT."

RASPBERRIES.—Established varieties have taken the lead this season for all the prizes, yet the Committee still hold to the favorable opinion expressed of the *Orange* (a seedling by Dr. BRINKLE') in their report last year.

A Sub-Committee found the *Catawissa* in a bearing condition in the grounds of Mr. BRUCE, who expressed a highly favorable opinion of the variety. Its greatest merit will be in the fact that it is one of the best for procuring seedlings from.

Most of the varieties which are in general cultivation claim to be hardy, withstanding our severe winters without protection. Many of them may be, yet it is better to turn them down and cover every autumn, as insuring an increased crop the following year. It is but little trouble to do it, and it will repay in the abundance of fruit which follows such care.

STRAWBERRIES.—Last year the Committee awarded ISAAC FAY the Lyman Plate, valued at fifty dollars, for his seedling called "*Jenny Lind*," being the best seedling strawberry, after a trial of three years. The *Jenny Lind* strawberry has been shown the past season by several persons, and it has been uniformly good, though the best shown this season was *Sir Charles Napier*, by Messrs. HOVEY.

GRAPE MILDEW.

MESSRS. EDITORS:—In the *Genesee Farmer* for March, 1858, under the head of Transactions of the Ohio Pomological society for 1857, I find an article headed Mildew and Rot of the Grape. After reading this article, I have concluded to write a few words on the subject of mildew, As for the rot, I have never seen any; but to the subject of mildew I have given some thought. It is generally conceded, I believe, that mildew is a fungus, and the question that naturally arises in the mind of the inquirer, is, How is it produced?

In the article above referred to, it is admitted that our native grapes thrive well, and are not subject to mildew in the wild state. What can it be in the cultivated state that renders them subject to mildew? It cannot be the pruning, and spreading out, to give more air and sun; for we find it worse when they are not pruned, and are left to grow thick and bushy, as in the natural state. And surely it can not be owing to the ground being tilled and highly manured, and thereby producing a more rapid growth; for we find that old vines that have not been manured, and that have impoverished the soil, are affected more than others.

My experiments and observations lead me to the conclusion that mildew is produced by our highly cultivated soils being left exposed in wet or showery weather to the full rays of our very hot sun.—I could give you many instances to sustain my position, but perhaps two or three will answer.—A friend has two *Isabella* grape vines; One, an old vine, trained on the south-east side of his woodhouse, has never been subject to mildew; and the other, a young vine, trained on the south-east side of a tight board division fence, two or three rods north-west of the first. This vine, also, till lately, has never been subject to mildew. Both vines were subjected to the same treatment, but this last named vine last year was ruined by mildew.

Now, in looking for the cause, I find that last spring, his neighbor on the other side of said fence, carted six or seven wagon loads of black swamp muck, and spaded it in his garden, (which garden had not been cultivated for many years before) and the inference is, that this soil, by being thus exposed to the rays of the sun the past wet season, produced that state of things favorable to the production and growth of mildew.

Another neighbor has about two acres, planted with *Isabella* grape vines, which have been cultivated with great care, and the ground kept clean, not even a weed being allowed to grow and shade the ground; but the grapes were spoiled by mildew, while in front of his house, in a grassy lawn, there are several vines on which not a trace of mildew was to be found.

Another has two vines; one, growing on a grass plot, has never shown any mildew, while the other, which grows in his garden, where it is cultivated round, has been subject to mildew for a great many years. But last year he planted his garden with potatoes, the vines of which grew very large, and completely covered the ground, and the grapes on this vine were perfectly free from mildew.

I have grown the *Isabella* for the last fifteen or sixteen years, and have not been troubled with mildew; and last year I had a fine crop of white foreign grapes, (I thing the *Royal Muscadine*) without any mildew; but the soil has been kept well covered.

I believe that if the ground around the vines is mulched with straw, or if some crop be grown on it that will, when the grapes are about half grown, completely shade it and not rob it of too much nourishment, that we shall not be troubled with mildew.

Lockport, N. Y. J. C.

DWARF PEARS—SHELTER FOR ORCHARDS.

FRIEND HARRIS:—In your March number, there are two communications on the subject of cultivating dwarf pear trees. Y. Z's is a sufficient answer to A. H. J. if they are to be cultivated. The dwarf pear is well adapted to village gardens. I can not conceive of any possible advantage that *farmers* are to gain by cultivating them. In the first place, they cost more than the pear tree, and just as much work to set them out, and much more to cultivate and manure them, that set seven or eight feet distance from each other, than those that set four rods. And again, those that are set at that distance, do not prevent the raising of fair crops; and the tree that bears three bushels, requires nearly as much labor to wash with lye in the fall, and to put soap in the crotches in the spring, as one that bears twenty bushels. The soap and lye are of more importance than the setting out of trees, as the aggregate loss of trees, to the farmers of the State, has been more in the last two years, than the destruction of the wheat by the weevil. It takes no more snuff and beef's gall, and no longer to put it on a standard tree, than a dwarf, to save it from the ravages of mice, which is quite as important as the setting out in season, when they are abundant, as they do not relish snuff and gall, any better than the insects that infest the trees do soap; and if good and thick, (though it may be dirty,) it will remain in the crotches to be washed down the tree by every shower, sufficiently to prevent them from traveling up the tree, to build their nests and eat the leaves. As a farmer, I should as soon think of raising dwarf horses, cattle, or swine, as dwarf trees, except for ornament.

I fully concur with you, Mr. Editor, "that there is no question better deserving the attention of horticulturists, than how can we best provide shelter for fruit trees." And I may add, farmers that reside in cold, bleak places, where the snow drifts, can protect themselves much cheaper and better by a belt of trees, for ameliorating the severity of the

winter and spring frosts. I do not, however, believe that the Silver-leaved Poplar is as well adapted as some other kinds of trees. These conveniences for man and protection of beast, did not escape the ken of the All-wise Creator, as he made trees with the same exact niceness for shelter and protection that he did everything else. It really seems to me, therefore, that those that keep their blankets through the winter, are more desirable than the Poplar, that lays off hers, at the approach of cold weather, down to the naked poles. In this instance it would hardly pay to attempt to change the laws of Nature, as it would require much less breadth of trees, covered with their thick foliage for protection, than those that had none; and if I was to recommend any particular tree, it would be the Balsam, as the hardiest to stand the bleak wind and cold, and their limbs are more strong, and better prepared to stand the heavy snow that falls and lies on them, than any other. They are much less liable to all insects, than the Poplar, and are a long-lived tree, and require no looking after, longer than the second year, as they never sprout nor want trimming, nor do their limbs or top decay, as the Poplar, and will grow well on cold, wet, and will grow on warm, dry land, and will make as perfect a protection in fifteen years after being set out, as a side of a building, if care is taken in setting, to put each alternate one, with branches starting out from the ground, and the other, five or six feet from the ground. Three rows thus set, is quite sufficient if set twelve feet apart; or two, if eight feet.

I would not recommend a farmer to purchase those trees of any man that brings them along for sale, but go to the woods himself at the time they change their foliage, and take them up without breaking or even marring the roots, and pack them well in moss, (which will be found most generally in great abundance where the trees grow,) keep them wet until set. The holes should be dug before the trees are brought home, that they need not be kept out of the ground longer than possible.—Mulch them well with straw as soon as set, and keep it sufficiently wet to keep the roots moist through the dry season, the first as well as the second after setting. After that, they need the least care of any tree that grows.

Hornby, N. Y. March, 21, 1858. A. B. DICKINSON.

EXPERIMENTS ON HEDGING WITH THE OSAGE ORANGE.

EDITORS GENESEE FARMER:—My rail timber being all used up, the question came forcibly to my mind, what am I going to do for fencing material hereafter? I have tried post and rail, and board fence, but they have proved of very short duration. The best timber we have here for posts is white oak, and they generally rot off at the ground in the course of ten or twelve years. Those that have tried wire fence, find that it not to be depended upon for durability. Therefore, taking all things into consideration, I have come to the conclusion that a good hedge fence is the most durable and the cheapest fence, in the long run, that a farmer can make.

I was traveling in the State of Ohio, in the fall of 1850, and was very much pleased with the beautiful appearance of an Osage Orange hedge I saw there; so, when I got home, I concluded I would try the experiment. The next spring, I procured a quart of the seed and planted it in the garden; and not knowing then how to manage it, but about two-thirds of it came up. Still, I had enough to set out 40 rods of hedge, which I planted the spring following, after removing the fence and plowing the ground well. I thought at that time, like a good many others, that I had nothing more to do with it, after planting it, but to trim it occasionally till it became a fence: but I have found out since where I failed. The grass grew up among it, and it grew but slowly. It should have been hoed occasionally, and the grass kept down. I have about 100 rods that I have planted since, which I have planted differently, which is now far ahead of the first 40 rods. I hoe it twice a year, spring and fall, and cut it off each year about the first of September, which I think is better than to cut it in the spring. The first three years, I cut it two, four, and six inches from the ground in order to have it branch out and get a good broad foundation; after that, I cut it a foot higher each year from the previous one, till I got it about five feet high. After that, trim the sides and top with the hedge shears.

But my experience teaches me that there is a better plan to raise a hedge, which I shall adopt hereafter; and that is, to plant the seed immediately in the hedge row, which will save the trouble of transplanting; and I think I can get a fence a year or two sooner by that means. My plan will be as follows:—

In the first place, spade up a strip about three feet wide, the length you want your hedge, (which I think is better than to plow it;) put the spade down about a foot, and be careful to bury all the grass underneath; then take an iron toothed rake and rake the ground over smooth, raising it highest in the middle. It is now ready for the seed, which, if you plant in the spring, must be sprouted in order to have it grow immediately. My method of sprouting is as follows; I soak the seed twenty-four hours in a strong brine; then I take it out and put it in a shallow box, keeping it damp with warm water sprinkled over it occasionally, and keep a wet woolen cloth on top of it, and set it by a warm stove, and they will sprout in ten or twelve days. But if you plant in the fall, the sprouting may be dispensed with, as the frost will loosen the hull so that they will come up in the spring. When you are ready for planting, get a line, say five rods long, and make a red mark on it chalk every ten inches, (which is the distance I plant them apart now,) stretch it along the centre; then take two seeds up between your finger and thumb, and press them into the ground, about an inch deep, opposite each red mark on the line. By putting two seeds in a place, if one should fail to grow, there would still be enough left. The spring following, cut them off about an inch above the ground; and when there is two in a hill, cut one off an inch below the ground, which is better than to pull it up. Keep them well hoed for three or four years, and cut them each year as I have before stated. They must be protected from cattle and sheep for at least five years. After that they cannot hurt them; and in six or seven years you will have a fence that will turn anything, and one that will last your lifetime and your children after you. J. H. P.

Gorham, N. Y.

Ladies' Department.

DOMESTIC RECEIPTS.

ROCHESTER CAKE.—One pound of butter, one and three-fourth lbs. of sugar, two lbs. of flour, eight eggs, one pint of sour milk, (if you wish, take half this quantity in cream, as it makes it richer,) one tea-spoonful soda, two tea-spoonfuls cream-tarter—put soda in the milk, cream-tarter in the flour—nutmeg to your taste, and half wine glass of brandy improves it. With the whole of this quantity, you can have a fruit loaf, a loaf with jelly, and a plain loaf. Bake slowly.

RAILROAD CAKE.—Two cups of sugar, half cup of butter, three cups of flour, one cup of sour milk or cream, one tea-spoonful of soda, two tea-spoonfuls cream-tarter—soda in the milk, cream-tarter in the flour—nutmeg or cinnamon. For cake, I always use the sourest milk or cream I have; it makes it lighter and whiter.

CREAM COOKIES.—One pint of cream, two cups of sugar, three eggs, two tea-spoonfuls of soda, four tea-spoonfuls cream-tarter. Mix as soft as possible to roll. Nutmeg or cinnamon. Bake quick.

SUGAR COOKIES.—One cup of sugar, one cup of butter, one egg, a little nutmeg, and flour enough to roll thin. Bake quick.

QUEEN CAKE.—One pound of sugar, one pound flour, half pound butter, six table-spoonfuls sour cream, four eggs, three spoonfuls of rose water, or a half wine glass of brandy. This is very nice with fruit—one pound of currants, half pound of raisins. This must be well beaten.

LEMON CUSTARD PIE.—Grate the rind of a lemon, and after squeezing it until you have all the juice, wash the pulp in a tea-cup of clear water, then add the water to the juice, with the grated rind, and one tea-cup of sugar; put over the fire, and let it boil hard. When a little cool, add one egg well beaten, and a table-spoonful of flour, or rolled crackers. Bake with an under crust. One lemon makes one good pie. An excellent receipt.

AN EXCELLENT CUSTARD.—One quart of milk, two table-spoonfuls of flour, two eggs, four table-spoonfuls of sugar, half wine glass or two spoonfuls of brandy, and nutmeg. Beat the eggs, sugar, and flour well together, and stir into the milk while boiling; add the brandy and nutmeg when almost cold. You may separate the whites and yolks of the eggs, and beat the whites to a stiff froth just before you wish to use your custard. I always add a little white pulverized sugar to the froth, as it stiffens it, but add it after the eggs are beaten. Lemon can be used instead of brandy—half tea-spoonful.

HALF PAY PUDDING.—Four ounces of suet, four ounces of flour, four ounces of bread crumbs, four ounces of raisins, four ounces of currants, half pint of sweet milk, two table-spoonfuls of molasses.—Mix all well together, and boil in a mould for three hours. Wine or brandy sauce.

SWISS PUDDING.—Put layers of crumbs of bread, and stewed apples, and sugar and small pieces of butter between, until the dish is full; let the bread crumbs be the uppermost layer; then pour over it a tea-cup of water, and bake. Eat with a butter and sugar sauce. Any kind of fruit may be used for this.

A GOOD RECEIPT FOR CITRON PRESERVES.—Prepare the rind by taking off the two outer coats, cut into any form you desire; boil very hard thirty or forty minutes in alum water, which may be tolerably strong; then put your citron out of the alum water into some clear, cold water; then change them again, and let them boil hard in water; then take from the fire again and let them be again covered with cold water, and allow them to stand over night. In the morning make a syrup, allowing one and a half pounds white sugar to a pound of fruit. When your syrup is ready, add your fruit, and let them boil until entirely done and of a green color. When done, add a little race ginger and lemon.

The following is better than the above:—

GOOD RECEIPT FOR CITRON PRESERVES.—Prepare the rind, cut into any form you desire; boil very hard thirty or forty minutes in alum water tolerably strong; take them from the alum water and put into clear, cold water, allow them to stand over night; in the morning, change the water, and put them on to boil; let them cook until they have entirely changed color, and are quite soft; then make your syrup, allowing one and a half pounds of white sugar to one pound of fruit; then add your fruit, which needs but little more cooking. Race ginger, or lemon, flavors nicely. This receipt is the best I ever saw.

CURRANT MARMALADE.—Take a quart of currant juice, sweeten to your taste, thicken with ground rice, boil it well, stirring all the while when boiling, pour into mould. When cold, eat with cream.

COTTAGE PUDDING.—Two tea-cups of sugar, five table-spoonfuls of butter; stir together two eggs beat light, two tea-cupfuls of milk, one quart of flour, one tea-spoonful of soda, two tea-spoonfuls cream-tarter, spice to your taste. Bake in a deep dish or pan. Wine sauce.

These are good and well-tried receipts.

Oak Spring, near Cincinnati, Ohio. O. M. GANO.

A WORD TO FARMERS WIVES ABOUT CHICKENS.

EDS. GENESEE FARMER:—The ladies, I see, are sending us all sorts of excellent receipts for making cakes, pies, puddings, etc., but I do not recollect that they have said one word about chickens. Now, I think no farmer's table complete without plenty of chickens and eggs; and these we can not have, unless we take good care of them. Do not leave them to the care of the *boys*, or even your husband—for the boys are apt to neglect them, and your husband has plenty of other things to attend to—but take care of them yourself, and take *good* care of them, too, and you will find they will amply repay you for your trouble. Give them a warm house and plenty of grain, such as corn, wheat, oats, etc., plenty of good water, and in winter, a box of lime, sand, gravel, and ashes, to play in.—Give them also a little meat, chopped fine, every two or three days, crumbs from the table, boiled potatoes, etc., and my word for it, you will have nice fat hens and plenty of good fresh eggs, much better than any put down in lime, salt, or bran.—Some ladies may think this too much trouble, but I don't, and I would say to such, *try it*.

Galena, Laporte Co., Ind. BETSEY A. DAVIS.

We hope none of our agents will forget that the time for competition for our April Premiums expires on the 15th of April. There is yet time to secure a prize. Do not neglect to ask your neighbors once more to subscribe. Every additional subscriber increases your chances. The Premiums are worth trying for. There is little competition. Farmers are as likely to subscribe now as a month or two ago. Give them another opportunity. The *Genesee Farmer* is not a *news*-paper, and the back numbers are as good now as ever, and are always useful for reference. There are thousands of farmers who are taking no agricultural paper the present year who would subscribe for the *Farmer* if its claims were presented to them. Give them an opportunity.

The Genesee Valley Horticultural Society.—In 1828 or '29, an association of gentlemen in this city, consisting of Isaac Hills, L. B. Langworthy, E. B. Strong, A. Reynolds, W. Whitney, H. Hooker, N. Goodsell, and others, made up a purse for the purchase of choice varieties of fruit and ornamental trees, flowering shrubs, etc. Some of these were obtained from Mr. Prince, of Flushing, and others, through him, from Europe, together with a choice collection of flower and vegetable seeds. On their arrival, they were distributed among the members, and planted. Many of these trees are now growing in a flourishing condition in this vicinity.

This praiseworthy enterprise has led to astonishing results, alike beneficial to Rochester and the whole country. It was from these trees that our nurserymen obtained many of their scions. They formed a nucleus around which have sprung up those magnificent nurseries for which Rochester is so justly celebrated, and which have done, and are now doing, so much for the prosperity of the city and for the improvement of our extensive country.

The same association also organized, in 1830, the "Horticultural Society of Monroe County," and projected the publication of the *Genesee Farmer*, the first number of which was issued on the 1st of January, 1831. In 1847, the name of the Society was changed to the "Horticultural Society of the Valley of the Genesee," the object being to enlist the sympathy of horticulturists not only in Monroe County, but throughout the whole "Genesee country."

It is pleasant to look back to the period when this society was first organized, and to examine in the bud the ideas of an association which has done so much for the cause of horticulture. In an address, delivered at the meeting called for the purpose of organizing the society, (September 20, 1830,) we find the following interesting paragraph:

"Novel as the suggestion of a Horticultural Society is to us, as inexperienced and as untaught as we feel in its science, yet we are favored with a prospect of at least a partial success in our undertaking, by the goodness of our climate, soil, and location. Our soil is mostly a warm, light, pliable, and fertile loam, the chosen kind for gardens and fruit orchards. The marine atmosphere of Lake Ontario renders our climate nearly as temperate as that of New York and Long Island; and our village market promises a reasonable remuneration for a part of our labors, to be divided between profit and enjoyment.

"Gentlemen, shall we attempt the undertaking?"

The society *was* formed, and the undertaking proved much more than "a partial success." The "village" has become a large and flourishing city; the exhibitions of the Society rapidly improved, and they are now surpassed by none in the United States. The magnificent collections of fruit shown at these exhibitions call forth the admiration of the best pomologists of the country. And yet, strange to say, the citizens of Rochester manifest so little interest in these exhibitions, that, at the last annual meeting of the association, a prominent member proposed to *disband the Society!*

This proposition has had the effect of calling the attention of those interested in horticultural pursuits to the subject; spirited meetings have been held, the Constitution and By-Laws have been revised, efficient officers have been elected for the coming year, and the Society bids fair to be even more useful in the future than it has been in the past. The following are the officers of the Society for the present year:

President—SELAH MATHEWS.

Vice Presidents—W. A. Reynolds, H. G. Warner, L. Farrar.

Treasurer—J. A. Eastman.

Secretary—C. W. Seelye.

Summer-fallowing an old sod for Wheat.—In a recent conversation with John Johnston, Esq., of Geneva, N. Y., he observed that in an experience of thirty-six years, he had never had a good crop of wheat after summer-fallowing an old sod; but when he planted it first to corn, or sowed oats, he never failed of getting a first rate crop of wheat after fallowing the land the next summer. He gets plenty of straw in the former case, but very little grain. Summer-fallowed corn ground has always produced great crops of wheat.

Orchards in Exposed Situations.—Our esteemed correspondent, D. Edwards, of Little Genesee, Allegany Co., N. Y., imforms us that the severe winter of 1856-7 destroyed most of the fruit trees in that region, and adds, "There are very few pear or plum trees left. Of the apples, some orchards are half dead, and these are generally on flats, or creek bottoms, while orchards on hills—even on the west side of hills and greatly exposed to the westerly winds—very few have died."

Verbenas by Mail.—We are indebted to Dexter Snow, "the great verbena man" of Chicopee, Mass., for a select collection of his seedling verbenas. They were sent by mail, and arrived in admirable condition. Those in want of verbenas should send for one of Mr. Snow's new catalogues of his "unrivalled collection, numbering near 150 famed varieties."

We are informed by the President of the American Pomological Society, Hon. M. P. Wilder, that the Seventh Session will be held in New York, on the 14th day of September next. Circulars will be issued in due season.

The Wheat Crop never looked better than at the present time. In some sections, on good land, it looks too well. On the whole, the prospect for a good wheat crop never was more favorable.

Subjects for Prize Essays.—The following subjects for Prize Essays have been suggested by our correspondents:

On the Cultivation of Hops.

On Harrows and Harrowing.

On pasturing Sheep in Orchards.

On Bean Straw as Feed for Sheep.

On Stacking and Feeding out Straw.

On the best plan of a Cellar for a Farm-house.

On the Duty of Kindness to Domestic Animals.

Does it injure Butter to color it? and if so, why?

On the best method of raising and picking Geese.

On the best substitutes for Hay in feeding Stock.

On the Construction and Arrangement of Barn-yards.

Are Sheep or Hogs the most Profitable Stock to Fatten?

Should Cows be Milked more than once a day in Winter?

On the best method of preserving Cheese from injury by flies.

On the importance of providing Shelter for all kinds of Stock?

The best time, place, and way of feeding out Corn-stalks to Cattle.

Can more Butter be made by churning all the milk than the cream only?

On the best method of destroying poison Sumac—detailing experiments.

Would it be prudent for Farmers to adopt the Ten Hour System of Labor?

Is it injurious or beneficial to remove all the small stones from the soil? and why?

Will it pay to cut and steam Hay, Straw, Corn-fodder, Meal, and Roots, for Stock?

Will it pay best to raise Mules or Horses, either for Farm Purposes or the Market?

Should Farmers adorn and beautify their Homes and Farms before they become wealthy? and if so, how may it be done in the easiest manner?

Would it be an advantage to Farmers possessing old improved Farms, to keep their Cattle and Horses stabled or yarded during the whole year?

How much stock and what kinds are desirable on one hundred acres, including timber lot, managed in the usual way of grain-growing and stock-raising combined?

What buildings and fixtures are required for farming one hundred acres, including timber lot, profitably, managed in the usual way of grain-growing and stock-raising combined?

What tools and implements are necessary to farm it profitably on one hundred acres, including timber lot, managed in the usual way of grain-growing and stock-raising combined?

Horticultural Subjects.—On Stealing Fruit.

On the best method of using Liquid Manure for Gardens.

On the best season for Transplanting Fruit and Forest Trees.

On the Cheapest and most Economical method of Constructing Cold Vineries.

On the Cheapest and most Economical method of Constructing and Heating Propagating Houses.

A dollar book will be awarded to the best essay on each of the above subjects, sent in on or before the 1st of June, so that the essays may be given in the July number.

A Fine Calf.—We have in this neighborhood what we think a fine Durham Bull Calf, the property of William Harvey. At three months old, he weighed 380 lbs.; at four months, 490 lbs.; at five months, 585 lbs.; at seven months, 710 lbs. Can any of your American readers beat this? L. L.—*Sparta, C. W.*

Circulating Library.—*Editors Genesee Farmer:*—By reference to your list of successful competitors for January premiums, I find my own name stands No. 5, and am entitled to the amount of $12 in Agricultural books. I have enclosed a list, selected from your catalogue as published in the January number, which please forward to my address, and accept my thanks for the same.

When they arrive, I intend to establish a Farmers' Circulating Library—adding such books as I already possess, suitable for the purpose—for the special benefit of those who subscribe to the *Genesee Farmer*, at the club price; and that alone shall constitute a member of the Library, subject to such regulations as I shall deem necessary. This will be an additional inducement, and must, I think, eventually increase the circulation of the *Farmer*.

It is pleasing to observe, in our community, an increasing desire for Agricultural literature, and if I can do anything towards supplying that want, I consider it my duty to do so, and shall be amply re-paid in witnessing an improvement in both farm and farmers.

Perhaps some of your more successful agents, who have been receiving premiums twice a year—50, 40, 30, and 20 dollars worth at a time—have already formed libraries for the benefit of farmers. If not, I would suggest that they do so; and will not hesitate in saying, that they will experience more *real* pleasure—and I may add profit, too, though indirectly—in giving their neighbors an opportunity to read and improve their minds, their habits, and their farms, as well as their own. It will excite a general interest in the science of Agriculture, and introduce the too generally neglected pleasures of Horticulture. It will create a desire for the ornamental, as well as the useful; thereby beautifying the homesteads, and rendering "farm live more attractive" to the rising generation.

It has been remarked that, "Agricultural Literature is too dry, and lacks variety to engage the attention of the young;" but such a remark must proceed only from an abnormal state of mind, rendered so by fictitious reading; for no science presents such a variety of aspects—such a range for profitable and sublime subjects to engage the mind, and the pen. It is Nature's own subject, the study of which must lead the mind from "nature up to nature's God."—Rowland W. Sawtell.—*Woodstock, C. W.*

A Grub in an Egg.—For the benefit of the curious, I send you what I consider a strange freak of nature. As one of my neighbors was breaking some eggs, inside of one of them, perfect in all its parts, was a large white *Grub*, an inch and a quarter in length. Can some of your readers explain how it came there? L. Lewis.—*Sparta, C. W.*

Stalk of Corn.—I have in my possession a stalk of corn, which grew on my farm, with two perfect branches, two perfect ears of corn, and two perfect tassels. Who, among your numerous farmer readers, can beat this? W. W. Graham.—*Near Duncansville, Mercer Co., Ky.*

Inquiries and Answers.

Siberian Barley.—(J. Snider, Crowland, C. W.) We do not know where Siberian barley can be obtained. Last year a correspondent in Pennsylvania sent us a sample of barley which we thought was Siberian, but he omitted to give his post-office address. If this meets his eye, we hope he will inform us what success he has had in raising it, etc. It is similar to the common barley, except that the grains separate from the chaff in threshing, and it has consequently more the appearance of wheat, and weighs 66 lbs. per bushel. It is extensively cultivated in the North of Europe, and was introduced about half a century ago into England, but did not succeed well there. It is probable that it would do better in our short, hot summers. A variety somewhat similar to the Siberian has been extensively disseminated in this country, under the name of "the Beardless Barley." It is no new thing. It was introduced into England in 1817, from the Himmalayan Mountains, and was called Nepaul barley, or Nepaul wheat, (*Hordeum trifurcatum.*) Like the Siberian, its culture has been

abandoned in England, but it is said to succeed well in this country. It may be obtained from I. W. Briggs, of West Macedon, N. Y.

Bark Lice.—(L. H. A., Plymouth, Ind.) Prof. Harris, in his "Treatise on Insects," says: "The best application for the destruction of these insects, is a wash made of two parts of soap and eight of water, with which is to be mixed lime enough to bring it to the consistence of thick white wash. This is to be put upon all parts of the tree, where the insects are, with a brush, so as to cover the whole surface and fill all the cracks in the bark. June, when the insects are young and tender, is the best time to do it." They are frequently got rid of by washing the trees with strong lye, and scrubbing with a hard brush, in the spring.

Godey's Lady's Book.—(A Farmer's Daughter.)—You will find Godey's Lady's Book just the magazine you want. It is useful and entertaining, abounding in everything interesting to ladies. Each number has at least one beautiful steel frontispiece, with several colored fashion plates, and designs too numerous to mention. Send three dollars to L. A. Godey, 323 Chestnut street, Philadelphia, Pa., and you will get the work by return mail.

Horse Power Thrashing Machine.—(R. S., Pelham, C. W.)—You will find Wheeler's Horse Power, Thrasher and Separator, a most excellent machine. For price and further information, see advertisement in this number, or send for a circular, to Wheeler, Melick & Co., Albany, N. Y. This firm is one of the oldest and most reliable in the United States, and you may depend on getting a machine that will be satisfactory.

The Atlantic Monthly.—(H. S.)—You can obtain this new, spirited, and ably conducted magazine from any bookseller, or by enclosing $3 to the publishers—Phillips, Sampson & Co., Boston, Mass.

Berkshire Pigs.—(J. G. Stephens, Stephensport, Ky.) You can obtain excellent Berkshire Pigs from Samuel Thorne, of Washington Hollow, Dutchess Co., N. Y.

Grasses.—Can any of your able correspondents inform me what kind of grass is considered the best for upland pasture—soil and climate both dry? Also, the best pasture grass for stiff clay lands, that are lying in water from four to six months yearly, and are liable to bake in the summer. As sowing grasses is attracting a good deal of attention at present in Oregon, an answer to the foregoing questions will be of general interest. We have the following named grasses in cultivation in Oregon: Timothy, Red Top, Orchard grass, Kentucky Blue grass, and what is called the Big English Blue grass. The latter is a light green and glistening grass, and in seed and seed stalk, very much resembles chess. What is the true name of it? J. Minto.—*Salem, Oregon Territory, Jan.* 8, 1858.

Shell Marl.—There is in my neighborhood an extensive deposit of Shell Marl of about the color and general appearance of whiting or Spanish White, (such as is used for putty,) though, perhaps, a little more porous and with little alkaline taste. The shells are mostly disintegrated, but traces of them are plainly visible. It is about one foot thick, and has about a foot of muck above it, covered with a medium-sized but vigorous growth of swamp timber. From the above description, can you or any of your correspondents form any opinion of its value as a manure, what soils and crops it is applicable to, and what is the best manner of applying it? S. B. Peck.—*Gorham, N. Y.*

Skippers in Hams.—The *American Cotton Planter* contains a receipt to prevent skippers in hams. It is simply to throw "China berries" on the fire while smoking the hams. I cannot ascertain what "China berries" are, and should feel obliged if some of your correspondents could furnish me the information. D.—*Gates, N. Y.*

Muck as a Top Dressing.—Can you or your readers inform me, in regard to the benefit of muck as a top dressing for grass land? In cleaning out a water hole three summers ago, we scraped a quantity of muck on the pasture near, and I have observed, 1st, that the weeds which grew on the muck were plentiful the first season; 2d, that the grass which grew did not seem to be relished by the stock; 3d, that the grass seemed to be improved in quantity, especially, the third year. Will the improvement continue? On the whole, do you think muck beneficial to grass lands? H.—*Maple Hill, N. Y.*

Dutton Corn, Poultry, Suffolk Pigs, &c.—Can some of your many correspondence inform me through the columns of your most valuable paper, the *Genesee Farmer* if the Dutton corn is not the best field variety of corn; and if so, where it can be obtained, and at what price for seed? Also, of some *good, honest* poultry dealer, in this State, and where can a pair of Suffolk Pigs be obtained, and what price? A Beginner.—*Lockport, N. Y.*

Notices of Books, Pamphlets, &c.

Hedges and Evergreens: A complete manual for the Cultivation, Pruning, and Management of all Plants suitable for American Hedging: especially the Maclura, or Osage Orange. Fully illustrated with engravings of Plants, Implements, and Processes. To which is added a Treatise on Evergreens: their different Varieties—their Propagation, Transplanting, and Culture in the United States. By John A. Warder, M. D. New York: A. O. Moore, 140 Fulton street, New York. 1858. Price, prepaid by mail, $1.

The increasing attention paid to the raising of hedges, and the great want of information on the subject, render this book particularly acceptable at the present time. There is, perhaps, no man in the United States better qualified to undertake such a work, than Dr. Warder—a gentleman of much experience, a close observer, and an enthusiastic and genial writer.

The book opens with an interesting history of, and reason for, hedging. Then follows some remarks on the economy of live fences and their influence on climate, on the selection of plants for shelter, screen, barrier, and ornamental hedges. It is contended that the "Osage Orange is *the* hedge plant for the United States," that it is the "only good thing known and fit for the purpose in this country." A valuable and detailed account of the best methods of sprouting the seeds of the Osage Orange, setting out the plants, culture, training, and pruning, occupies ninety-two pages of the book. We would suggest to the enterprising publisher that it would be well to publish this part of the work separately in a cheap form. It would thus reach thousands of readers who will not buy the present more expensive—but, of course, more valuable—work. We make the suggestion from a desire to see so valuable a treatise extensively disseminated. The treatise on Evergreens occupies sixty-one pages, is handsomely illustrated, and abounds with much useful imformation. The whole making a beautiful volume of 290 pages.

Report of the Massachusetts Board of Agriculture.—The fifth annual Report of L. C. Flint, the able Secretary of the Massachusetts Board of Agriculture, has appeared, and, as usual, abounds with matter of a useful and practical character. We shall notice more at length in a future number.

Transactions of the New York State Agricultural Society, for 1856.—We are indebted to the Secretary, B. P. Johnson, Esq., for this work. It is not as large as usual, but none the less valuable for the exclusion of much matter which has encumbered previous volumes.

Maine Board of Agriculture.—The Second Annual Report of this Society is exceedingly creditable to Secretary Goodale. It contains 230 pages, handsomely illustrated with cuts of improved stock, farm buildings, etc., and filled with much useful and interesting matter.

New Advertisements this Month.

Sweet Potato Plants—O. S. Murray & Son., Twenty Mile Stand, Warren Co., Ohio.

Hereford Cattle—S. M. Ely, Ripley, Chautauque Co., N. Y.

"The Commercial Crisis—Its Cause and Cure"—Salter & Ross, Montreal, C. E.

Dwarf Pear Trees—T. G. Yeomans, Walworth, Wayne Co., N. Y.

Choice Seeds by Mail—Geo. F. Needham, Buffalo, N. Y.

To Nurserymen, Fruit Growers, Dealers in Trees, etc—G. W. Eastman, Rochester, N. Y.

Albany Tile Works—C. & W. McCammon, Albany, N. Y.

Real Estate for Sale—B. H. Robinson, Lancaster Court House, Virginia.

Dansville Seminary.

Wooden Water Pipe—I. S. Hobbie & Co., 44 Arcade, Rochester, N. Y.

Isabella and Catawba Grape Vines—R. T. Underhill, M. D.

Horse Powers and Thrashing Machines—Wheeler, Melick & Co., Albany, N. Y.

ADVERTISEMENTS,

To secure insertion in the FARMER, must be received as early as the 10th of the previous month, and be of such a character as to be of interest to farmers. TERMS—Two Dollars for every hundred words, each insertion, PAID IN ADVANCE.

ISABELLA AND CATAWBA GRAPE VINES,

OF PROPER age for forming Vineyards, cultivated from, and containing all the good qualities which the most improved cultivation for over eighteen years has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, provided their locality is not too far north.

All communications addressed to R. T. UNDERHILL, M. D., New York, or Croton Point, Westchester Co., N. Y., will receive attention.

The past season, though the coolest and most unfavorable for grape maturing we have had in twenty years, he ripened his whole crop,—proving his Isabellas and Catawbas have become perfectly acclimated. That gives him full assurance that by improved cultivation, pruning, &c., a crop of good fruit can be obtained EVERY YEAR, in most of the Northern, all of the Middle, Western and Southern States.

N. B.—To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vinedressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor. When the purchase is large and approved paper or other security can be given, a liberal credit on most of the purchase will be given.

Also, APPLE-QUINCE TREES, (which are sometimes called the Orange Quince,) for sale as above. R. T. U.

April, 1858.—1t.

TO NURSERYMEN, FRUIT GROWERS, DEALERS IN TREES, &C.

FOR SALE, at great bargains, 5,000 Dwarf Pear Trees, 2 and 3 years old, fine for Orchard planting. Also, 50,000 French Quince Stock, suitable to bud this season.

I will sell the above by the hundred or thousand, very cheap for cash, or first class business paper. G. W. EASTMAN.

Rochester, N. Y. April, 1858.—1t 95 Arcade

CHOICE SEEDS BY MAIL,

DESCRIPTIVE CATALOGUES of the choicest collection of American, English, French and German FLOWER SEEDS ever offered in this country, (ditto of Garden Seeds,) sent to applicants enclosing a three cent stamp.

20 Packets of selected Flower Seed, and 16 of Garden Seed, post paid, for ($1,00) one dollar. Address

GEO. F. NEEDHAM.

Buffalo, N. Y., April, 1858.—1t

DANSVILLE SEMINARY.

THIS SEMINARY, located at Dansville, Livingston County, N. Y., has been lately established, under the supervision of the East Genesee Conference of the Methodist Episcopal Church.

The Academy Buildings have not been erected, but the work will soon commence, and will be urged forward with all reasonable dispatch.

In the meantime, the School will be comfortably accommodated in a building, which, originally erected for educational purposes, has been specially fitted up and furnished, by the Trustees, for the use of this Institution.

REV. SCHUYLER SEAGER, D. D., so long and favorably known as Principal of the Genesee Wesleyan Seminary, at Lima, has accepted the Presidency of this Institution. The services of other Teachers, of long experience and eminent success, have been secured, and the Trustees feel confident that the Board of Instruction will not be wanting either in ability or efficiency.

The First Term of this Seminary will commence, Wednesday, April 21st, 1858.

The charges for Tuition will be as follows:

In Common English Branches, per Term,..... .....$5 50
In Higher Branches, ... 6 50

Students from abroad can obtain board in respectable private families, at moderate prices.

It is expected that the citizens of Dansville, and the surrounding country, will show their appreciation of these superior educational facilities.

By order of the Board of Trustees.

A. C. GEORGE, PRESIDENT.

I. L. ENDRELS, Secretary.

Dansville, N. Y., March 18, 1858. apl-1t

WOODEN WATER PIPE,

MANUFACTURED AT OLEAN, N. Y., by the Cattaraugus Water Pipe Manufacturing Company. This Pipe is made of the best pine timber, and after being thoroughly tested is proved to be the best and cheapest in use for Chain Pumps, for supplying Railroad Tanks, Farm Houses and Barns, Dry Fields, and for Water Course of every description.

It is durable, easily laid down, not liable to choke or get out of order, and leaves water pure and sweet and perfectly healthy.

The usual size is 8¼ inches, with 1½ bore; each piece 8 feet long, with joints, so that when laid down the entire distance is water tight. A larger size with larger bore can be furnished if desired.

A constant supply is kept on hand in this city, and orders can be filled immediately. I. S. HOBBIE & CO.,

April, 1858.—1t. 44 Arcade, Rochester, N. Y.

VALUABLE REAL ESTATE FOR SALE IN VIRGINIA.

THE undersigned, acting as Agent, has a large number of FARMS FOR SALE, of all sizes, many of them on the RAPPENHANNOCK, PIANKITANK and POTOMAC RIVERS. I will enumerate a few: There is one, containing about 400 acres, lying immediately on the Rappahannock, about eight or ten miles from its mouth, level as a floor, and in good condition; one on the Piankitank, about fifteen miles from its mouth, containing about 1,700 acres, on which is a considerable quantity of Cord Wood, where vessels of the largest class can load with the greatest ease—there is on this Farm a great abundance of the finest Marl; and one on the Potomac, a beautiful residence, where Fish, Oysters, and Wild Fowl abound in their season.

It is unnecessary for me to give a list of all the Estates at this time in my possession for sale; suffice it to say, that whether those in want desire either Arable or Timber Land, I can supply them.

☞ All letters promptly answered. My post-office is *Lancaster Court House, Virginia.* B. H. ROBINSON.

April, 1858.—1t

DWARF PEAR TREES.

A VERY superior stock of Dwarf Pear trees, consisting of about 40,000 trees, two years old, three and a half to six or seven feet high, of the most approved varieties, and *much below usual prices.*

Also, a general assortment of Fruit and Ornamental Trees and Plants, at Walworth Nurseries, Walworth, Wayne Co., N. Y.

April, 1858.—1t T. G. YEOMANS.

"THE COMMERCIAL CRISIS—ITS CAUSE AND CURE."

JUST PUBLISHED, two lectures on the above subject, delivered in the Bonaventure Hall, Montreal, C. E., on 30th Dec. and 4th Feb'y last, by WM. BROWN, Cote-des-Neiges Nurseries, near Montreal. Price 25 cents. For sale by SALTER & ROSS, Montreal. On receipt of one dollar by the Publishers or author, four copies will be sent by mail. April, 1858.—1t*

HEREFORD CATTLE.

A LOT of thorough-bred Hereford Cattle for sale.

S. M. ELY.

April, 1858.—3t. Ripley, Chautauque Co., N. Y

SEEDS! SEEDS! SEEDS!

THORBURN'S NEW DESCRIPTIVE CATALOGUE OF VEGETABLE, FIELD, AND FRUIT SEEDS, FOR 1858, with directions for cultivating vegetables, is now ready, and will be sent to applicants enclosing a three cent stamp.

The subscribers offer, of the growth of 1857, and of the very finest qualities, their usual extensive assortment of SEEDS, comprising many *novelties* and every tested desirable variety known in the several departments of

VEGETABLE, FIELD, FLOWER, TREE, AND FRUIT SEEDS.

They would particularly call the attention of cultivators and amateurs to the following

Choice Peas.

EXTRA EARLY DANIEL O'ROURKE—The earliest known.
" " SANGSTER'S No. 1—A great favorite.
" " TOM THUMB—Very fine growing, but 8 inches high.
EARLY SEBASTOPOL—New and good.
CHAMPION OF ENGLAND—One of the very best.
DWARF AND TALL SUGAR—Edible pods.
HAIR'S DWARF MAMMOTH—Superb.
HARRISON'S GLORY AND PERFECTION—New and very productive.
NAPOLEON AND EUGENIE—Both new and early, wrinkled.
EPPS' LORD RAGLAN—New and superb.
EPPS' MONARCH— " "
CARTER'S VICTORIA—Fine, wrinkled.
BRITISH QUEEN—One of the best late.

With thirty other standard sorts, for which see catalogue.

ALSO,

EARLY PARIS, NONPARIEL, and LENORMAND'S CAULIFLOWER;
EARLY WAKEFIELD, OX-HEART, and WINNINGSTADT CABBAGE;
EARLY and GIANT WHITE and RED SOLID CELERY;
PRIZE CUCUMBERS, for frames;
EARLY TOMATOES;
SWEET SPANISH AND BULL-NOSE PEPPER;
EARLY CURLED LETTUCE;
EARLY CURLED PARSLEY;
EXTRA EARLY TURNIP BEET;
EARLY WHITE VIENNA KOHL-RABI;
WINTER CHERRY or STRAWBERRY TOMATO;
APPLE AND PEAR SEEDS;
MAHALEB CHERRY PITS;
HAVANA TOBACCO SEED;
DIOSCOREA BATATAS or CHINESE POTATO;

With thousands of other SEEDS of the same superior qualities as have heretofore afforded such universal satisfaction, and which can be recommended with the fullest confidence as unsurpassed for genuineness.

AFRICAN IMPHEE—genuine, as raised by Mr. L. Wray; $1 per lb.
SORGHUM, or CHINESE SUGAR CANE; 25 cts. per lb.

Flower Seeds.

The collection this season is unusually large and choice, embracing many novelties.

Orders by mail will have immediate attention.

J. M. THORBURN & CO.,
February, 1858—3t 15 John street, New York.

SEEDS OF RARE AND POPULAR HARDY TREES AND SHRUBS.

THOMAS MEEHAN, of the Germantown Nurseries, near Philadelphia, issues every May, a Catalogue of over 200 kinds, for fall and winter sales. He has yet on hand for spring sales: European Strawberry tree, 75 cts. per oz. Holley leaved Berberry, (popular hardy evergreen,) 50 cents per oz. Cedar of Lebanon cones, $2 per dozen. Japan Cedar, 50 cts. per 200 seeds. American Holly, 75 cts. per lb., or $2.50 per 10 lbs. California Laurel, Laurus (regalis,) $4 per 100 seeds. Silver Fir, $1.50 per lb. Cembran Pine, $3.00 per lb. Sea Pine, $1.25 per pound. European Furze, or Whin, $1.50 per lb. Laburnum, $1.25 per lb. Honey Locust, 50 cts. per lb. Yellow Locust, $1 per lb. European Larch, $1.50 per lb. Nyssa Multiflora, (very handsome native tree,) $2 per lb. Negundo Californicum, (entirely new and beautiful,) $3 per 100 seeds. Japan Sophora, 50 cents per oz. Native and foreign Pear and other fruit seeds, at the lowest market rates.

Trees, plants, and flowers of all kinds, at the lowest prices.
March, 1858—2t.

AGRICULTURAL IMPLEMENTS.

A CONSIGNMENT of Agricultural Implements from an extensive manufactory, is now offered for sale at prices 20 per cent. below the printed rates of the Agricultural Warehouses. Consisting of Plows, Corn-Shellers, Fanning Mills, Straw and Hay Cutters, Vegetable Cutters, Corn Mills, Churns, Cultivators, Horse-Hoes, Road Scoops, Garden Barrows, &c., &c. A pamphlet giving description and prices, will be sent (free) on applying to the agent.

A. LONGETT,
March, 2t. 34 Cliff street, New York.

THREE HUNDRED AND THIRTY-SIX PAGES, AND FOUR HUNDRED AND FORTY ENGRAVINGS.

RURAL AFFAIRS.

A COMPLETE ENCYCLOPEDIA in miniature for every man with a Farm, a Garden, or a Domestic Animal—for every place which will grow a flower or a Fruit-tree—for every Purchaser or a builder in the country, and for every household in the city, delighting in representations or looking forward with hopes of Rural Life. Embracing

RURAL ARCHITECTURE,	IMPLEMENTS AND MACHINERY,
LANDSCAPE GARDENING,	FARM ECONOMY,
FRUIT CULTURE,	DOMESTIC ANIMALS,
ORNAMENTAL PLANTING,	FARM BUILDINGS,
BEST FRUITS AND FLOWERS,	HINTS FOR CULTIVATORS.

BEAUTIFULLY ILLUSTRATED WITH 440 ENGRAVINGS

By JOHN J. THOMAS, Author of the "American Fruit Culturist," &c., &c. Sent, post-paid, on receipt of $1 in Gold, Postage Stamps or Bank-note, by the publishers,

LUTHER TUCKER & SON,
Albany, New-York.

*** The same publishers have just issued THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS FOR 1858—a beautiful manual of all Agricultural and Horticultural matters—with 180 engravings. Price 25 cents. For the sake of introducing it more widely in every locality, they will send one dozen copies, post-paid for TWO DOLLARS!

☞ AGENTS WANTED to sell the above works in all parts of the country. March, 1858.—3t.

ROCHESTER CENTRAL NURSERIES.

Send for a Catalogue.

CHINESE SUGAR CANE SEED.—A package of this Seed, containing enough to plant half an acre of land, with plain directions for planting, cultivating, harvesting, and after treatment of the Cane, will be sent, postage paid, on the receipt of One *Dollar*. Address C. W. SEELYE,
February, 1858.—4t Rochester, N. Y.

PEAR SEEDS AND SEEDLINGS.

GOOD, healthy Pear Seedlings, 1 year, $8 per 1,000, $75 per 10,000: 2 years, $15 per 1,000, $140 per 10,000.

New England Pear Seeds in prime order for spring sowing, $2 per quart. Apple, Mazzard, Plum, Angers Quince, Mahaleb, Paradise, and Doucain Stocks, of the best quality. Catalogues to any address. Carriage paid to New York or Boston.

B. M. WATSON, Old Colony Nurseries,
February, 1858.—3t Plymouth, Mass.

SWEET POTATO PLANTS

SENT to all orders by Express, far and near, at $2. a thousand. To dealers, ordering 10,000 or more at a time, $1.50 a thousand. Plants will be ready early in May. Send for our Circular, on mode of cultivation, the success of the Sweet Potato in the North last year, &c. Plants boxed and delivered at Railroad without charge.

O. S. MURRAY & SON,
April, 1858.—1t* Twenty Miles Stand, Warren Co., Ohio.

CRANBERRY CULTURE.

THE subscribers have issued a Circular on the Cranberry and its Culture. They will forward Circulars, free of charge, to all applications. Also will send plants in a fresh state, by express, to all parts of the United States. Price, $5 per 1,000. Address,

SULLIVAN BATES, & CO.,
March, 3t. Bellingham, Norfolk Co., Mass.

OIL MILL.

THE attention of Farmers in this and the adjoining Counties is invited to the subject of raising Flax for the seed. For this purpose, I am prepared to supply the seed upon favorable terms.

M. F. REYNOLDS, Manufacturer of Linseed Oil, White Lead and Zinc in oil—Sash, Doors and Blinds, 5 and 7 Buffalo street, Rochester, N. Y. March, 1858—3t.

MORGAN HORSE FOR SALE.

FOR SALE, in whole or in part, or in exchange for western land, a Morgan Horse (entire) of fine figure and action, seven years old.

J. DORE,
February, 1858.—3t Scottsville, Monroe Co., N. Y.

A. LONGETT,

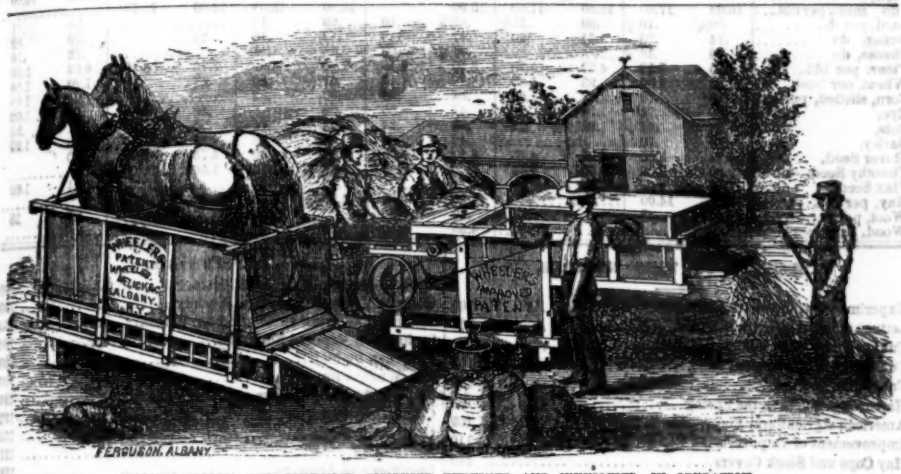
No. 34 CLIFF STREET, NEW YORK,

DEALER in Peruvian, Colombian and Mexican Guano, Superphosphate of Lime, and Bone Dust.
November 1, 1857.—1y.

CHINESE SUGAR CANE SEED—by express or otherwise at purchasers' expense—at 20 cents per pound.
100,000 1 year old Asparagus, $2.50 per thousand.
2,000 1 year old Red Dutch Currants, $20.00 per thousand.
Address, W. T. GOLDSMITH, Rochester, N. Y. March, 3

NEW-YORK STATE
AGRICULTURAL WORKS,

WHEELER, MELICK & CO., Proprietors.



DOUBLE POWER, AND IMPROVED COMBINED THRESHER AND WINNOWER, IN OPERATION.

MANUFACTURERS OF ENDLESS CHAIN RAILWAY HORSE POWERS, AND FARMERS' AND PLANTERS' Machinery for Horse Power use, and owners of the Patents on, and principal makers of the following valuable Machines:

WHEELER'S PATENT SINGLE HORSE POWER,

AND

OVERSHOT THRESHER WITH VIBRATING SEPARATOR.

This is a One Horse Machine, adapted to the wants of medium and small grain growers. It separates grain and chaff from the straw, and threshes about 100 bushels of wheat or twice as many oats per day, without changing horses—by a change nearly double its quantity may be threshed.

Price $128 00.

WHEELER'S PATENT DOUBLE HORSE POWER,

AND

OVERSHOT THRESHER WITH VIBRATING SEPARATOR.

This Machine is like the preceding, but larger, and for two horses. It does double the work of the Single Machine, and is adapted to the wants of large and medium grain growers, and persons who make a business of threshing.

Price $160 00.

WHEELER'S PATENT DOUBLE HORSE POWER,

AND

IMPROVED COMBINED THRESHER AND WINNOWER.

[SHOWN IN THE CUT.]

This is also a Two Horse Machine, and has been much improved during the past season: it threshes, separates the grain from the straw, and winnows it at one operation, at the average rate of 150 bushels of wheat and 200 bushels of oats per day. In out door work, and for persons who make a business of threshing, it is an unequalled Machine.

Price $245 00.

Also, CLOVER HULLERS, FEED CUTTERS AND SAWING MACHINES.

☞ Our HORSE POWERS are adapted in all respects to driving every kind of Agricultural and other Machines, that admit of being driven by Horse Power, and our THRESHERS may be driven by any of the ordinary kinds of Horse Powers in use—either are sold separately.

☞ To persons wishing more information and applying by mail, we will forward a circular containing such detail as purchasers usually want—and can refer to gentlemen having our Machines in every State and Territory.

☞ Our firm have been engaged in manufacturing this class of Agricultural Machinery 23 years, and have had longer, larger and more extended and successful experience than any other house.

☞ All our Machines are warranted to give entire satisfaction, or may be returned at the expiration of a reasonable time for trial.

☞ Orders from any part of the United States and Territories, or Canada, accompanied with satisfactory references, will be filled with promptness and fidelity; and Machines, securely packed, will be forwarded according to instructions, or by cheapest and best routes.

April, 1858.—1t.

WHEELER, MELICK & CO., Albany, N. Y.

Prices of Agricultural Products at the Principal Markets in the United States, Canada and England.

	NEW YORK, Mar. 23d.	PHILADELP'IA, Feb. 23d.	ROCHESTER, Mar. 23d.	CHICAGO, Mar. 23d.	TORONTO, Mar. 23d.	LONDON, Eng., Mar. 1st.
Beef, per 100 lbs.,			$4.50 @ $6.00		$4.50 @ $5.50	$8.25 @ $13.00
do mess, per bbl.,	$10.00 @ $11.00			$8.00 @ $10.00		
Pork, per 100 lbs.,	6.75 7.50	$7.50 @ $8.00	5.75 6.50	5.00 5.75	5.50 6.50	10.50 13.00
do mess, per bbl.,	16.00 17.00	16.00 17.00	15.00	13.00 15.00	12.00 12.75	
Lard, per lb.,	.09½ .10½	.09 .10½	.09½ .10	.09 .10		.13 .17
Butter, do	.14 .23	.11 .20	.17 .18	.12 .16	.25	.19 .22
Cheese, do	.08 .10½		.07½ .09	.08 .11		.12 .16
Flour, per bbl.,	4.25 7.50	4.87 5.75	3.50 5.13	2.25 4.00	3.70 4.50	6 34 5 56
Wheat, per bush.,	1.02 1.50	.95 1.30	.70 1.15	.61 .80	.67 .98	1.20 1.36
Corn, shelled, per bu.,	.68 .70	.57 .62	.54 .56	.30 .32		1.02 1.05
Rye, do	.69 .72	.70	.47 .50	.50	.60	.90 1.02
Oats, do	.28 .47	.33 .35	.33 .34	.25 .26½	.35 .37	.57 .61
Barley, do	.60 .70		.40 .50	.35 .45	.40 .45	.78 1.20
Clover Seed, do	4.80 5.50	4.25 4.75	3.50 4.00	4.25 4.50	4.75 5.00	3.40
Timothy Seed, do	2.00 2.50	2.00 2.50	2.00 2.15	1.62½ 1.75	1.50 2.00	
Flax Seed, do	1.50	1.30		.70 .90		1.74 1.80
Hay, per ton,	13.00 14.00		6.00 8.00	3.50 7.00	9.00 13.00	
Wool, per lb.,	.26 .45		.20 .30		.15	.26 .36
Wood, hard, per cord,			4.50 5.50	5.50 6.00	4.00 4.50	

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